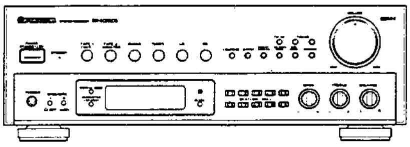
PIONEER
The Art of Entertainment

Service Manual



The illustration shows model SX−403RDS.

ORDER NO.
ARP2859

STEREO RECEIVER

SX-403RDS
SX-303RDS
SX-203RDS

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	The voltage can be converted by the following method.
	SX−403RDS	SX−303RDS	SX−203RDS		
HEXK	○	○	○	AC220−230V	AC240V, ∗
HBXK	—	○	○	AC240V	AC220−230V, ∗
HEWZXK	○	○	○	AC220−230V	AC240V, ∗

∗: Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" described in Service Manual.

- **For the following: SX−403RDS/HEWZXK; SX−303RDS/HBXK and HEWZXK; SX−203/HBXK and HEWZXK, refer to page 40.**

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1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES :

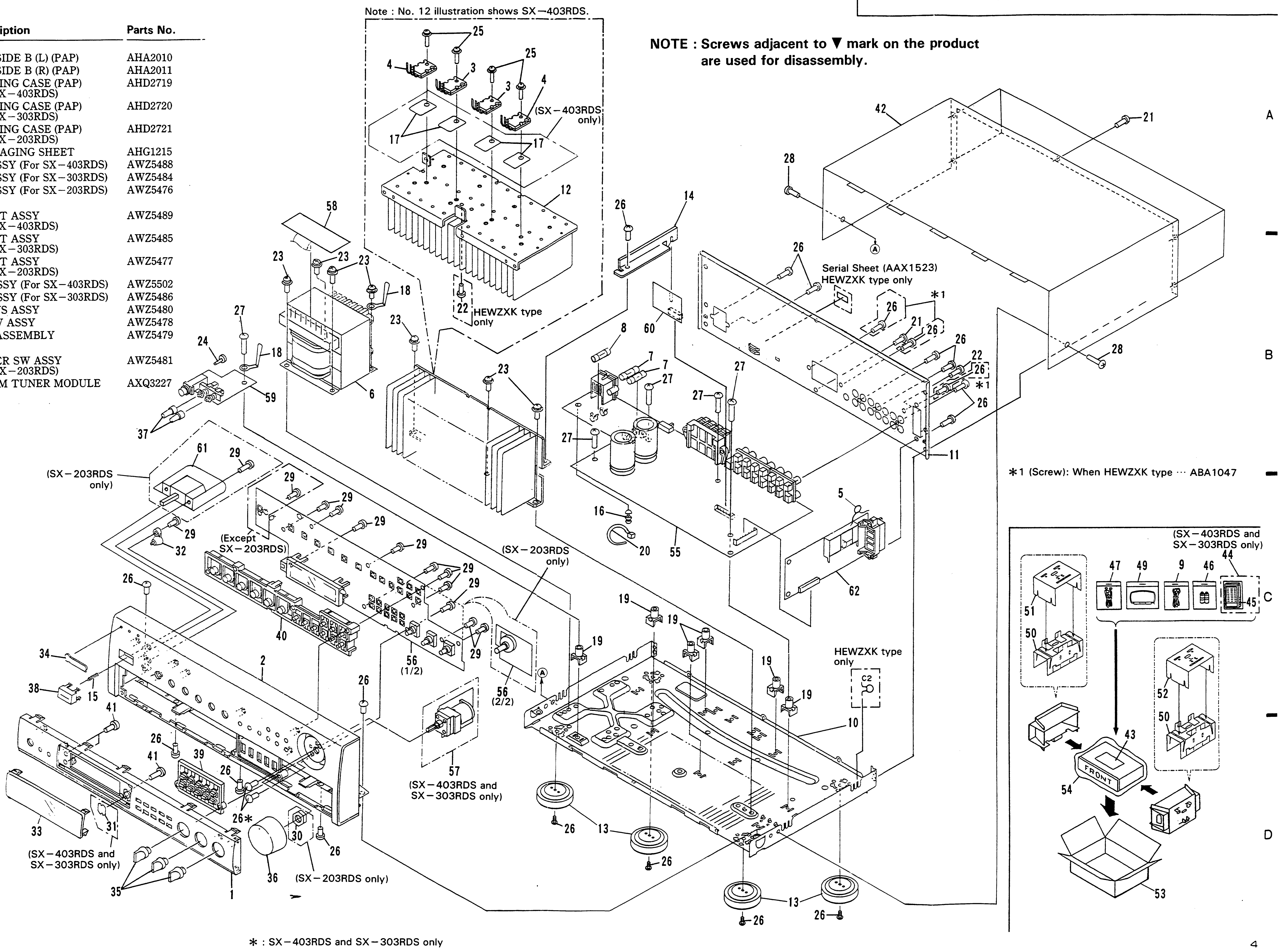
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts List of Exterior and Packing (For SX-403RDS/HEXK, SX-303RDS/HEXK and SX-203RDS/HEXK)

Mark	No.	Description	Parts No.
	1	SUB PANEL (PLS)	AAP1465
	2	FRONT PANEL (PLS) (For SX-403RDS)	AMB2222
	2	FRONT PANEL (PLS) (For SX-303RDS)	AMB2226
	2	FRONT PANEL (PLS) (For SX-203RDS)	AMB2227
⚠	3	TRANSISTOR (Q3, Q4) (For SX-403RDS)	2SA1302
⚠	3	POWER TRANSISTOR (Q3, Q4) (For SX-303RDS)	2SA1804
⚠	3	POWER TRANSISTOR (Q3, Q4) (For SX-203RDS)	2SA1803
⚠	4	TRANSISTOR (Q1, Q2) (For SX-403RDS)	2SC3281
⚠	4	POWER TRANSISTOR (Q1, Q2) (For SX-303RDS)	2SC4689
⚠	4	POWER TRANSISTOR (Q1, Q2) (For SX-203RDS)	2SC4688
	5	CERAMIC CAPACITOR (C1)	CKDYB102K50
⚠	6	POWER TRANSFORMER (T1) (For SX-403RDS)	ATS1544
⚠	6	POWER TRANSFORMER (T1) (For SX-303RDS)	ATS1543
⚠	6	POWER TRANSFORMER (T1) (For SX-203RDS)	ATS1542
⚠	7	FUSE (T800MA/250V, FU3, FU4)	AEK-507
⚠	8	FUSE (T2A/250V, FU1) (For SX-403RDS)	AEK-511
⚠	8	FUSE (T1.6A/250V, FU1) (For SX-303RDS)	AEK-510
⚠	8	FUSE (1.25A/250V, FU1) (For SX-203RDS)	AEK-509
⚠	9	AC POWER CORD	ADG1135
NSP	10	CHASSIS (MET)	ANA1481
	11	REAR PANEL (MET) (For SX-403RDS)	ANC2213
	11	REAR PANEL (MET) (For SX-303RDS)	ANC2164
	11	REAR PANEL (MET) (For SX-203RDS)	ANC2165
NSP	12	RADIATOR (MET) (For SX-403RDS)	ANH1475
NSP	12	RADIATOR (MET) (For SX-303RDS)	ANH1476
NSP	12	RADIATOR (MET) (For SX-203RDS)	ANH1477
	13	INSULATOR	PNW1912
	14	HOLDER (MTL)	ANG1928
	15	SPRING (FE)	ABH1095
	16	PCB SUPPORT	AEC1581
	17	SHEET (SX-403RDS only)	AEE1014
	18	BINDER	AEP-215
	19	PCB MOLD (PP)	AMR2533
NSP	20	BINDER (BK-1)	Z09-057
	21	SCREW (For SX-403RDS)	VCT30P080FZK
	21	SCREW (For SX-303RDS and SX-203RDS)	BCZ30P080FZK
	22	SCREW (STEEL)	ABA1047
	23	SCREW	ABA1054
	24	SCREW (STEEL)	ABA1095
	25	SCREW (STEEL)	ABA1194
	26	SCREW	BBZ30P080FMC
	27	SCREW	BBZ30P200FMC
	28	SCREW	BCZ30P080FZK
	29	SCREW	BPZ26P080FMC
	30	NUT (SX-203RDS only)	NK90FUC
	31	IR FILTER (PLS) (SX-403RDS and SX-303RDS only)	AAK2551
	32	LED LENS (PLS)	AAK2553
	33	FL PANEL (PLS) (For SX-403RDS and SX-303RDS)	AAK2556
	33	FL PANEL (PLS) (For SX-203RDS)	AAK2557
	34	NAME PLATE	PAM1608
	35	ROUND KNOB S (PLS)	AAB1389
	36	ROUND KNOB L (PLS)	AAB1390
	37	PUSH BUTTON (PLS)	AAD2530
	38	POWER BUTTON (PLS)	AAD2531
	39	STATION BUTTON (PLS)	AAD2532
	40	HINGE BUTTON (PLS) (For SX-403RDS)	AAD2534
	40	HINGE BUTTON (PLS) (For SX-303RDS and SX-203RDS)	AAD2533
	41	PUSH BUTTON (PLS)	AAD2535
	42	BONNET CASE (MET)	ANE1502
	43	OPERATING INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312
	44	REMOTE CONTROL UNIT (CU-SX087) (SX-403RDS and SX-303RDS only)	AXD1397
	45	BATTERY COVER (SX-403RDS and SX-303RDS only)	AZA7031
NSP	46	BATTERY (R6P, AA) (SX-403RDS and SX-303RDS only)	AEX-010
	47	FM ANTENNA ASS'Y	ADH1019
	48	....	
	49	LOOP ANTENNA (L8042)	ATB1011
	50	PAD SIDE A (PAP)	AHA2009

Mark	No.	Description	Parts No.
	51	PAD SIDE B (L) (PAP)	AHA2010
	52	PAD SIDE B (R) (PAP)	AHA2011
	53	PACKING CASE (PAP) (For SX−403RDS)	AHD2719
	53	PACKING CASE (PAP) (For SX−303RDS)	AHD2720
	53	PACKING CASE (PAP) (For SX−203RDS)	AHD2721
	54	PACKAGING SHEET	AHG1215
	55	AF ASSY (For SX−403RDS)	AWZ5488
	55	AF ASSY (For SX−303RDS)	AWZ5484
	55	AF ASSY (For SX−203RDS)	AWZ5476
	56	FRONT ASSY (For SX−403RDS)	AWZ5489
	56	FRONT ASSY (For SX−303RDS)	AWZ5485
	56	FRONT ASSY (For SX−203RDS)	AWZ5477
	57	VR ASSY (For SX−403RDS)	AWZ5502
	57	VR ASSY (For SX−303RDS)	AWZ5486
	58	TRANS ASSY	AWZ5480
	59	SP SW ASSY	AWZ5478
	60	RDS ASSEMBLY	AWZ5479
	61	POWER SW ASSY (For SX−203RDS)	AWZ5481
	62	FM/AM TUNER MODULE	AXQ3227

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

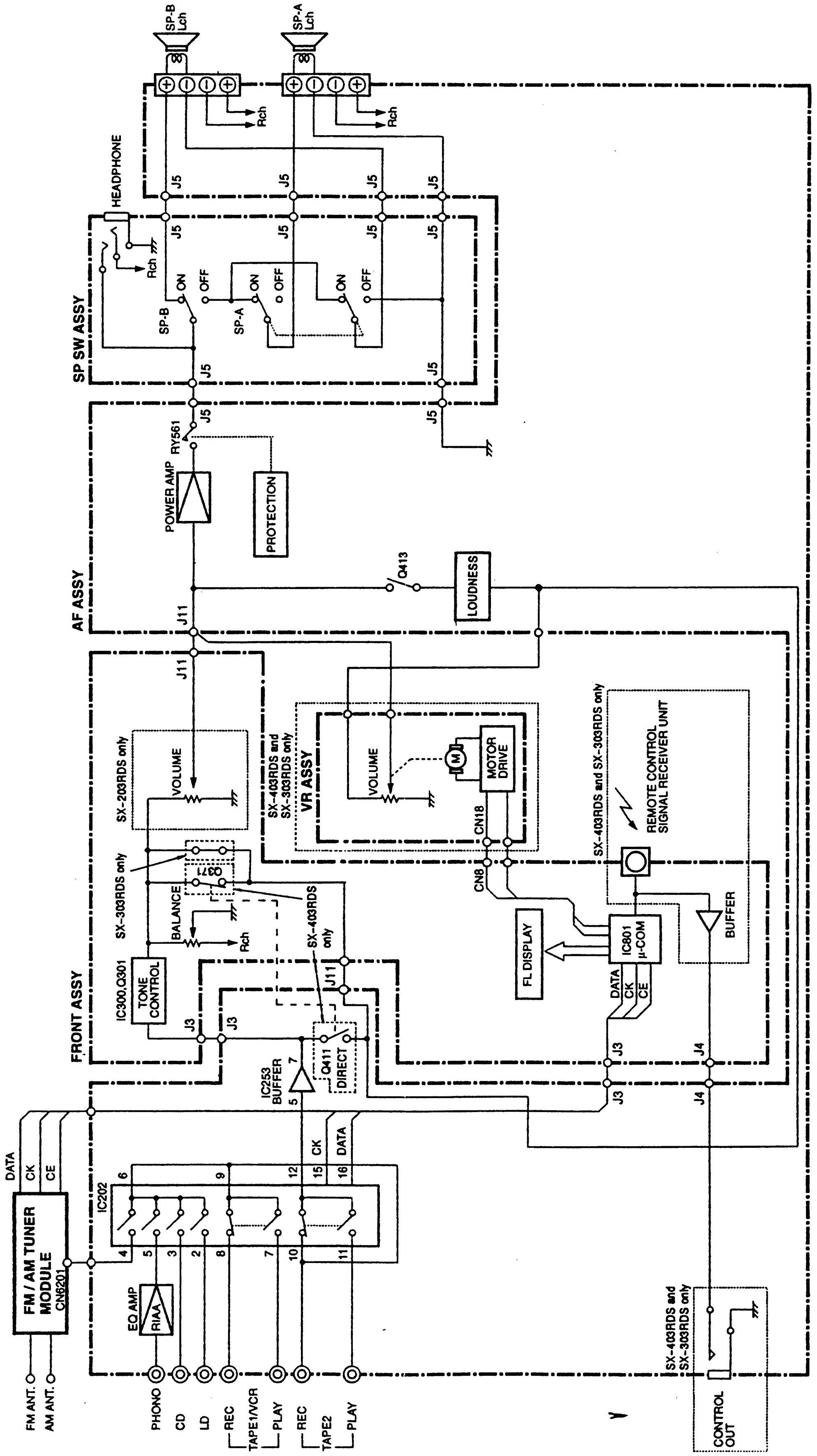

Note : No. 12 illustration shows SX−403RDS.

∗1 (Screw): When HEWZXK type ··· ABA1047

∗ : SX−403RDS and SX−303RDS only

25
4
3
(SX−403RDS only)
17
12
22
HEWZXK type only
58
23
18
6
27
24
59
37
26
14
60
8
7
27
Serial Sheet (AAX1523) HEWZXK type only
42
28
21
∗1
22
11
61
29
(SX−203RDS only)
32
(Except SX−203RDS)
40
16
20
55
5
62
34
38
15
2
56 (1/2)
56 (2/2)
(SX−203RDS only)
Ⓐ
19
HEWZXK type only
C2
10
41
39
33
31
(SX−403RDS and SX−303RDS only)
35
1
36
30
(SX−203RDS only)
26∗
57
(SX−403RDS and SX−303RDS only)
13
(SX−403RDS and SX−303RDS only)
47
49
9
46
44
45
51
50
52
43
FRONT
54
53

2. BLOCK DIAGRAM


SP-B Lch
SP-A Lch
Rch
HEADPHONE
SP SW ASSY
SP-B
SP-A
ON
OFF
J5
RY561
POWER AMP
PROTECTION
AF ASSY
Q413
LOUDNESS
J11
SX-203RDS only
VOLUME
SX-403RDS and SX-303RDS only
VR ASSY
MOTOR DRIVE
CN18
CN8
SX-403RDS and SX-303RDS only
REMOTE CONTROL SIGNAL RECEIVER UNIT
SX-303RDS only
BALANCE
S871
SX-403RDS only
FL DISPLAY
IC801 μ-COM
DATA
CK
CE
BUFFER
IC300,0301
TONE CONTROL
FRONT ASSY
J3
J4
IC253 BUFFER
Q411 DIRECT
IC202
FM / AM TUNER MODULE
CN8201
EQ AMP
RIAA
SX-403RDS and SX-303RDS only
CONTROL OUT
FM ANT.
AM ANT.
PHONO
CD
LD
REC
PLAY
TAPE1/VCR
TAPE2

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

NOTE FOR SCHEMATIC DIAGRAMS

Type 1A

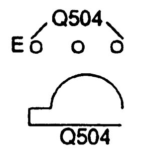
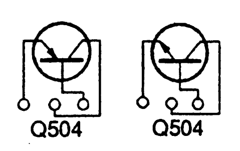
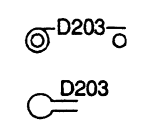
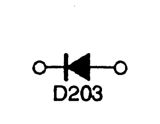
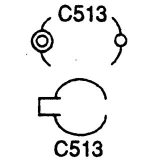
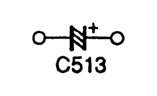
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   AF AMPLIFER SECTION :
   V : Signal voltage at rated output.
   ⌐ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in (   ) is DC voltage at rated power.
   TUNER SECTION :
   mV : Signal voltage at FM 1kHz, 100% MOD.
   ⌐ or ← V :
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ● : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH−□ ON THE SCHEMATIC DIAGRAM:**
   - SCH−□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FRONT assy

S801	0
S802	9
S803	8
S804	7
S805	6
S806	5
S807	4
S808	3
S809	2
S810	1
S811	MEMORY
S812	MPX MODE
S813	MEMORY SCAN
S814	DIRECT ACCESS
S815	DIRECT (SX-403RDS ONLY)
S815	RF ATT (EXCEPT SX-403RDS)
S816	LOUDNESS
S817	TUNING +
S818	TUNING −
S819	FM/AM
S820	CD
S821	LD
S822	TUNER
S823	PHONO
S824	TAPE2
S825	TAPE1/VCR
S826	RECEIVER
S827	CLASS
S828	CHARACTER/SEARCH
S829	DISPLAY MODE

NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with◎ or⊂shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

3.1 OVERALL SCHEMATIC DIAGRAM

Line Voltage Selection

Line Voltage can be changed by the following modification:

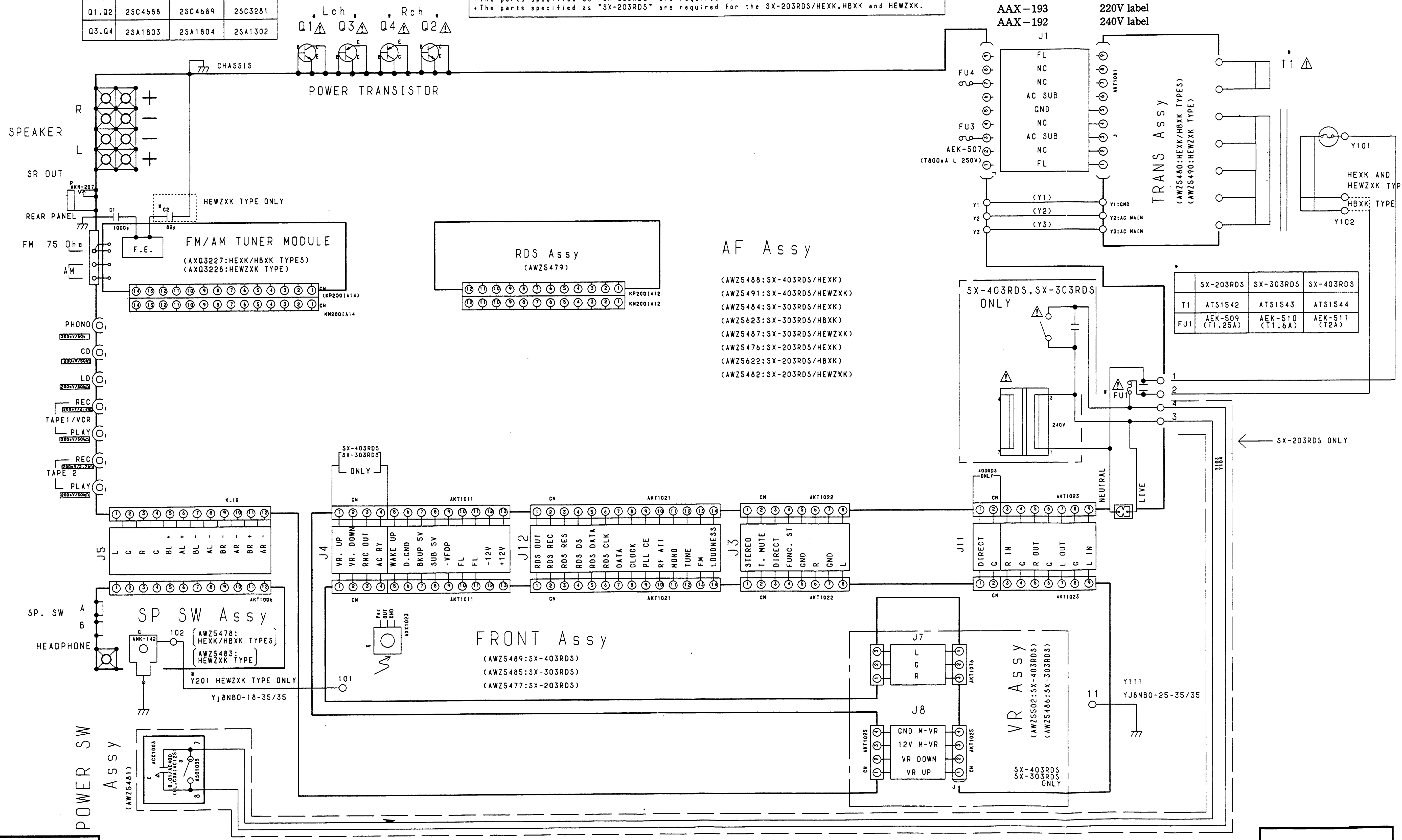
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection of the power transformer primary taps.
4. Stick a line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label

SCH-1

NOTE:

- The parts specified as "HEXK/HBXK TYPES" are required for the SX-403RDS/HEXK;HEXK and HBXK of SX-303RDS and SX-203RDS.
- The parts specified as "HBXK TYPE" are required for the HBXK of SX-303RDS and SX-203RDS.
- The parts specified as "HEWZXK TYPE" are required for the HEWZXK of SX-403RDS, SX-303RDS and SX-203RDS.
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.



1
2
3
4
5
6
A
B
C
D
Lch
Rch
Q1
Q3
Q4
Q2
CHASSIS
POWER TRANSISTOR
SPEAKER
R
L
SR OUT
AKN-207
REAR PANEL
HEWZXK TYPE ONLY
C1 1000p
C2 82p
FM 75 Ohm
AM
F.E.
FM/AM TUNER MODULE
(AXQ3227:HEXK/HBXK TYPES)
(AXQ3228:HEWZXK TYPE)
CN (KP200IA14)
CN KM200IA14
RDS Assy
(AWZ5479)
KP200IA12
KM200IA12
AF Assy
(AWZ5488:SX-403RDS/HEXK)
(AWZ5491:SX-403RDS/HEWZXK)
(AWZ5484:SX-303RDS/HEXK)
(AWZ5623:SX-303RDS/HBXK)
(AWZ5487:SX-303RDS/HEWZXK)
(AWZ5476:SX-203RDS/HEXK)
(AWZ5622:SX-203RDS/HBXK)
(AWZ5482:SX-203RDS/HEWZXK)
PHONO
CD
LD
REC
TAPE1/VCR
PLAY
REC
TAPE 2
PLAY
FU4
FU3
AEK-507
(T800mA L 250V)
J1
FL
NC
NC
AC SUB
GND
NC
AC SUB
NC
FL
AKT1081
(Y1)
(Y2)
(Y3)
Y1
Y2
Y3
Y1:GND
Y2:AC MAIN
Y3:AC MAIN
TRANS Assy
(AWZ5480:HEXK/HBXK TYPES)
(AWZ5490:HEWZXK TYPE)
T1
Y101
HEXK AND HEWZXK TYPES
HBXK TYPE
Y102
SX-403RDS,SX-303RDS ONLY
240V
FU1
NEUTRAL
LIVE
SX-203RDS ONLY
403RDS ONLY
AKT1023
J5
L
G
R
G
BL +
AL +
BL -
AL -
BR +
AR -
BR +
AR -
K_12
AKT1006
SX-403RDS SX-303RDS ONLY
J4
VR. UP
VR. DOWN
RMC OUT
AC RY
WAKE UP
D.GND
BKUP 5V
SUB 5V
-VFDP
FL
FL
-12V
+12V
AKT1011
J12
RDS OUT
RDS REC
RDS RES
RDS DS
RDS DATA
RDS CLK
DATA
CLOCK
PLL CE
RF ATT
MONO
TUNE
FM
LOUDNESS
AKT1021
J3
STEREO
T. MUTE
DIRECT
FUNC. ST
GND
R
GND
L
AKT1022
J11
DIRECT
G
R IN
G
R OUT
G
L OUT
G
L IN
SP. SW
A
B
HEADPHONE
ANK-142
SP SW Assy
102
(AWZ5478: HEXK/HBXK TYPES)
(AWZ5483: HEWZXK TYPE)
Y201 HEWZXK TYPE ONLY
101
YJ8N80-18-35/35
FRONT Assy
(AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(AWZ5477:SX-203RDS)
AXX1023
J7
L
G
R
AKT1076
J8
GND M-VR
12V M-VR
VR DOWN
VR UP
AKT1025
VR Assy
(AWZ5502:SX-403RDS)
(AWZ5486:SX-303RDS)
SX-403RDS SX-303RDS ONLY
11
Y111
YJ8N80-25-35/35
POWER SW Assy
(AWZ5481)
ACG1003
ASG1035
Y103 Y104

	SX-203RDS	SX-303RDS	SX-403RDS
Q1,Q2	2SC4688	2SC4689	2SC3281
Q3,Q4	2SA1803	2SA1804	2SA1302

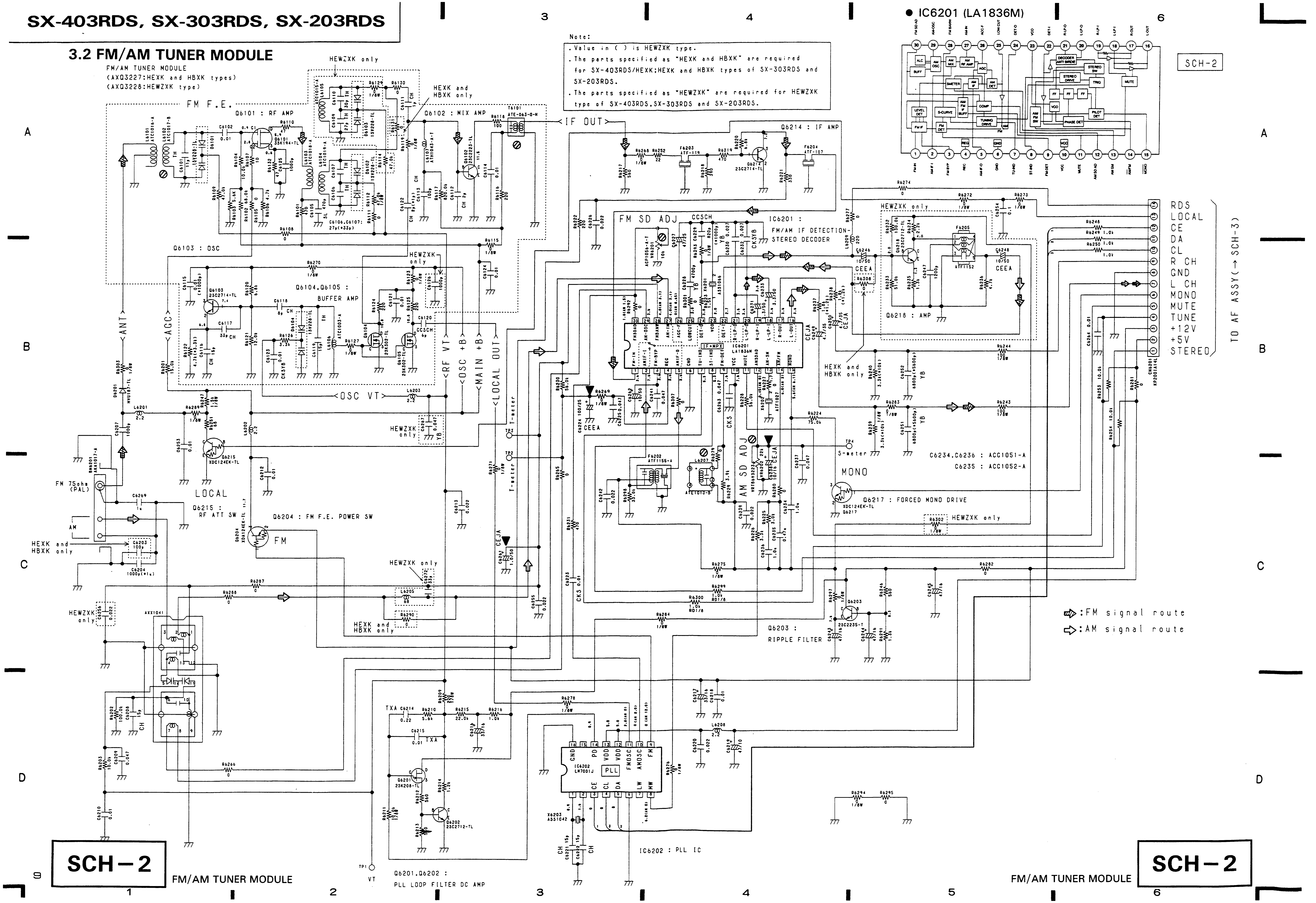
	SX-203RDS	SX-303RDS	SX-403RDS
T1	ATS1542	ATS1543	ATS1544
FU1	AEK-509 (T1.25A)	AEK-510 (T1.6A)	AEK-511 (T2A)

3.2 FM/AM TUNER MODULE

FM/AM TUNER MODULE
(AXQ3227:HEXK and HBXK types)
(AXQ3228:HEWZXK type)

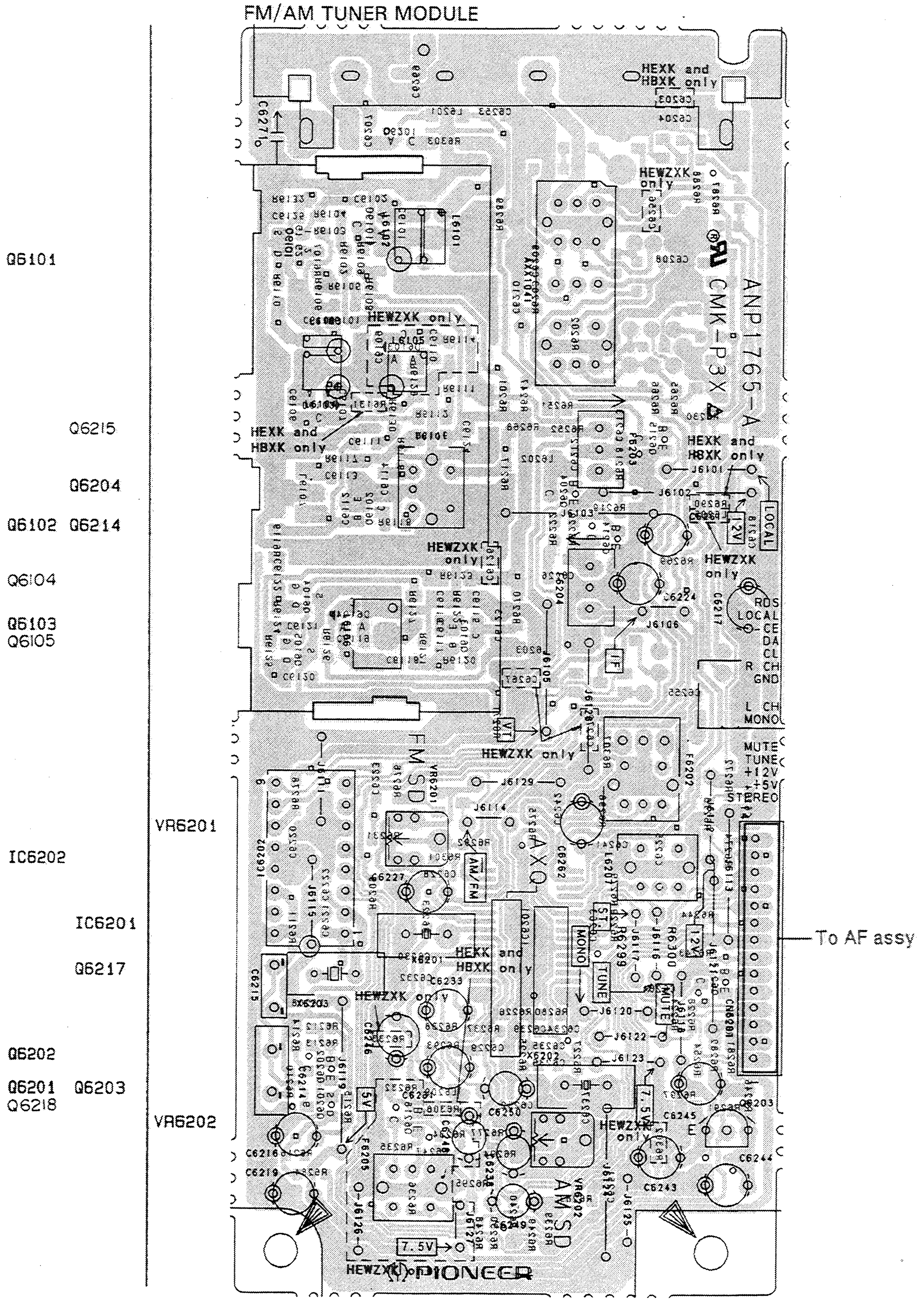
Note:

- Value in ( ) is HEWZXK type.
- The parts specified as "HEXK and HBXK" are required for SX-403RDS/HEXK;HEXK and HBXK types of SX-303RDS and SX-203RDS.
- The parts specified as "HEWZXK" are required for HEWZXK type of SX-403RDS,SX-303RDS and SX-203RDS.

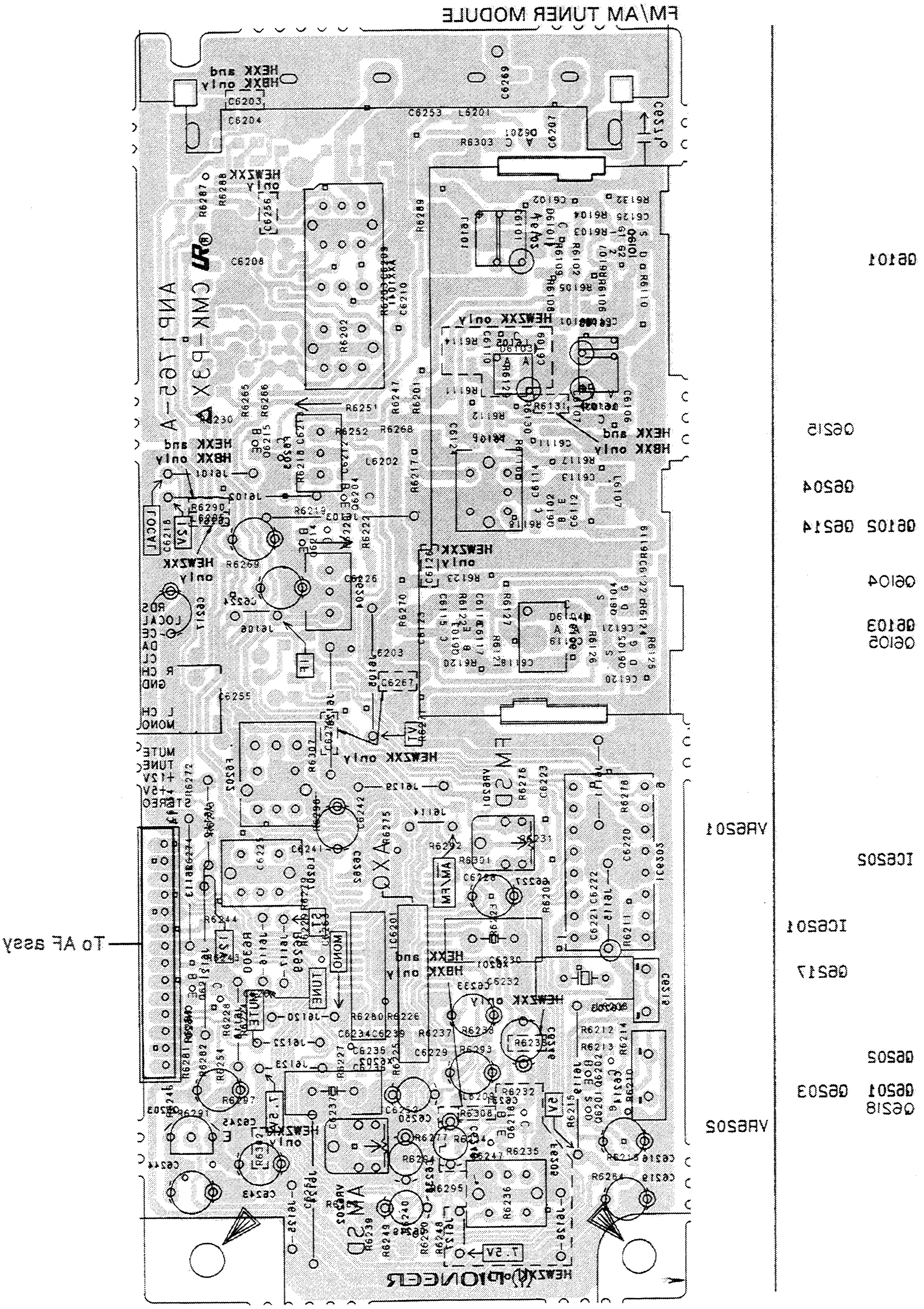

1
2
3
4
5
6
A
B
C
D
FM F.E.
Q6101 : RF AMP
Q6102 : MIX AMP
Q6103 : OSC
Q6104,Q6105 : BUFFER AMP
HEWZXK only
HEXK and HBXK only
<IF OUT>
Q6214 : IF AMP
FM SD ADJ
IC6201 : FM/AM IF DETECTION-STEREO DECODER
● IC6201 (LA1836M)
SCH-2
Q6218 : AMP
RDS
LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
TO AF ASSY (→ SCH-3)
<ANT>
<AGC>
<RF VT>
<OSC +B>
<MAIN +B>
<LOCAL OUT>
<OSC VT>
FM 75ohm (PAL)
AM
LOCAL
Q6215 : RF ATT SW
Q6204 : FM F.E. POWER SW
FM
T-meter
S-meter
AM SD ADJ
MONO
Q6217 : FORCED MONO DRIVE
C6234,C6236 : ACC1051-A
C6235 : ACC1052-A
Q6203 : RIPPLE FILTER
:FM signal route
:AM signal route
TXA
Q6201,Q6202 : PLL LOOP FILTER DC AMP
IC6202 : PLL IC
PLL
TP1
VT

- This diagram is viewed from the mounted parts side.

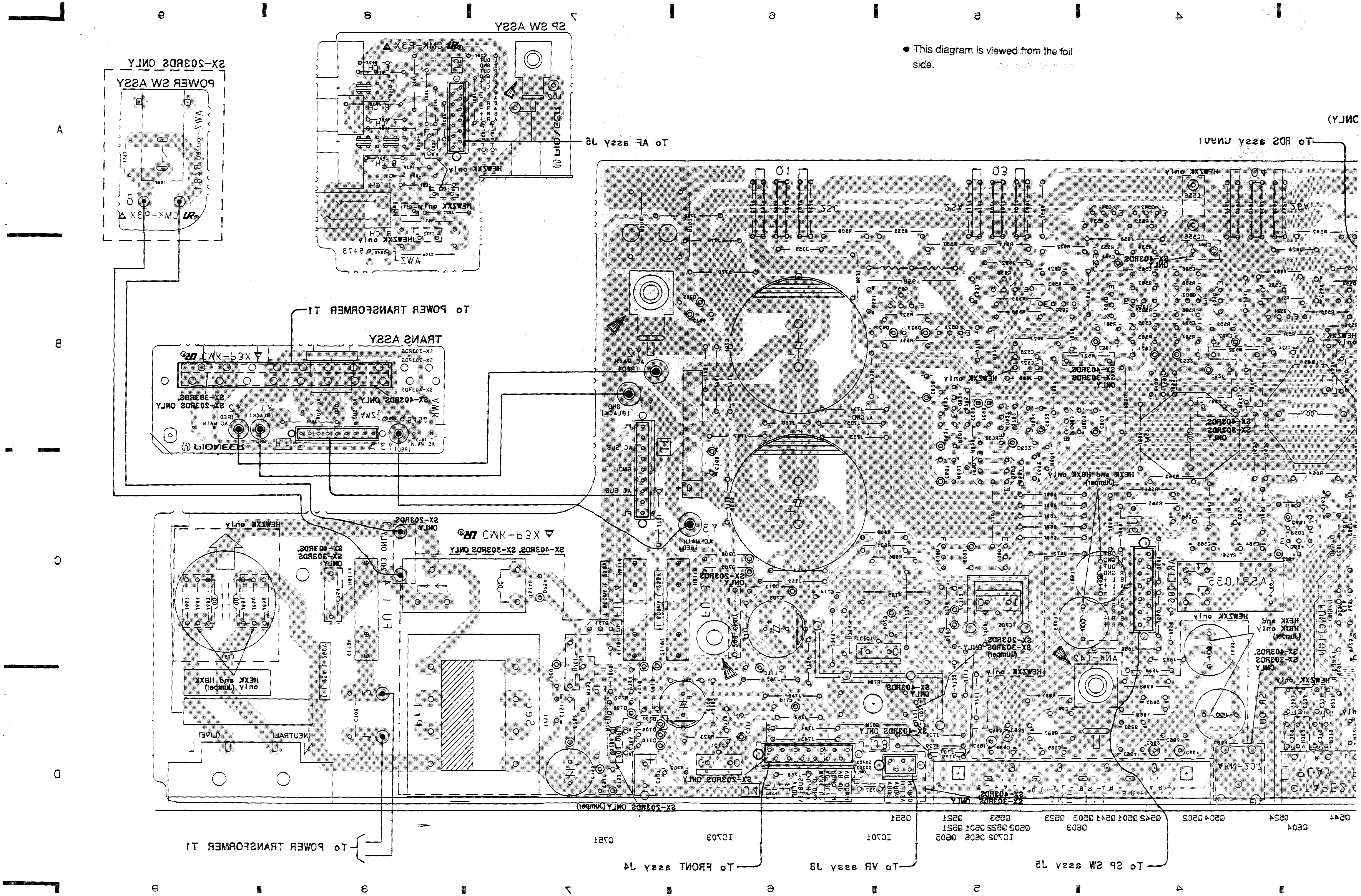
FM/AM TUNER MODULE


A
B
C
D
Q6101
Q6215
Q6204
Q6102 Q6214
Q6104
Q6103
Q6105
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201 Q6203
Q6218
VR6202
HEXK and HBXK only
HEWZXK only
ANP1765-A
CMK-P3X
LOCAL
12V
RDS
LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
To AF assy
FM SD
AM/FM
AM SD
ST
MONO
TUNE
MUTE
IF
VT
5V
7.5V
E
PIONEER

- This diagram is viewed from the foil side.

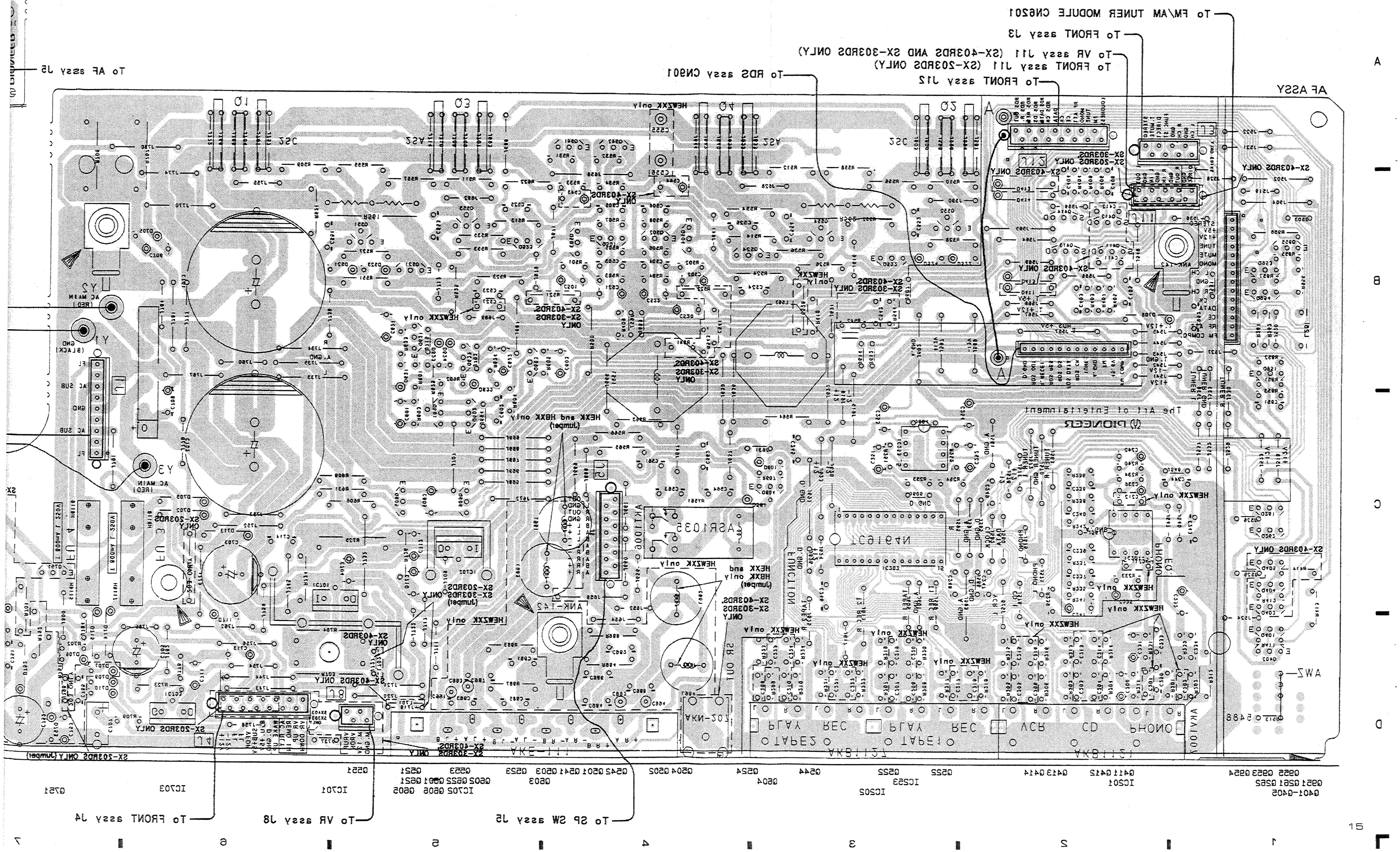

FM/AM TUNER MODULE
To AF assy
Q6101
Q6215
Q6204
Q6102
Q6214
Q6104
Q6103
Q6105
VR6201
IC6202
IC6201
Q6217
Q6202
Q6201
Q6203
Q6218
VR6202
HEXX and HBXK only
HEWZXK only
ANP1765-A
CMK-P33X
PIONEER
FM SD
AM SD
MUTE
TUNE
+12V
+5V
STEREO
RDS
LOCAL
CE
DA
CL
R CH
GND
L CH
MONO
A
B
C
D
1
2
3

● This diagram is viewed from the foil side.


A
B
C
D
9
8
7
6
5
4
SX-203RDS ONLY
POWER SW ASSY
SP SW ASSY
CMK-P3X
TRANS ASSY
CMK-P3X
To POWER TRANSFORMER T1
To AF assy J5
To RDS assy CN901
HEWZXK only
HEXK and HBXK only (Jumper)
SX-403RDS, SX-303RDS ONLY
SX-403RDS ONLY
SX-203RDS ONLY (Jumper)
(LIVE)
(NEUTRAL)
To POWER TRANSFORMER T1
To FRONT assy J4
To VR assy J8
To SP SW assy J5
IC703
IC701
IC702
PIONEER

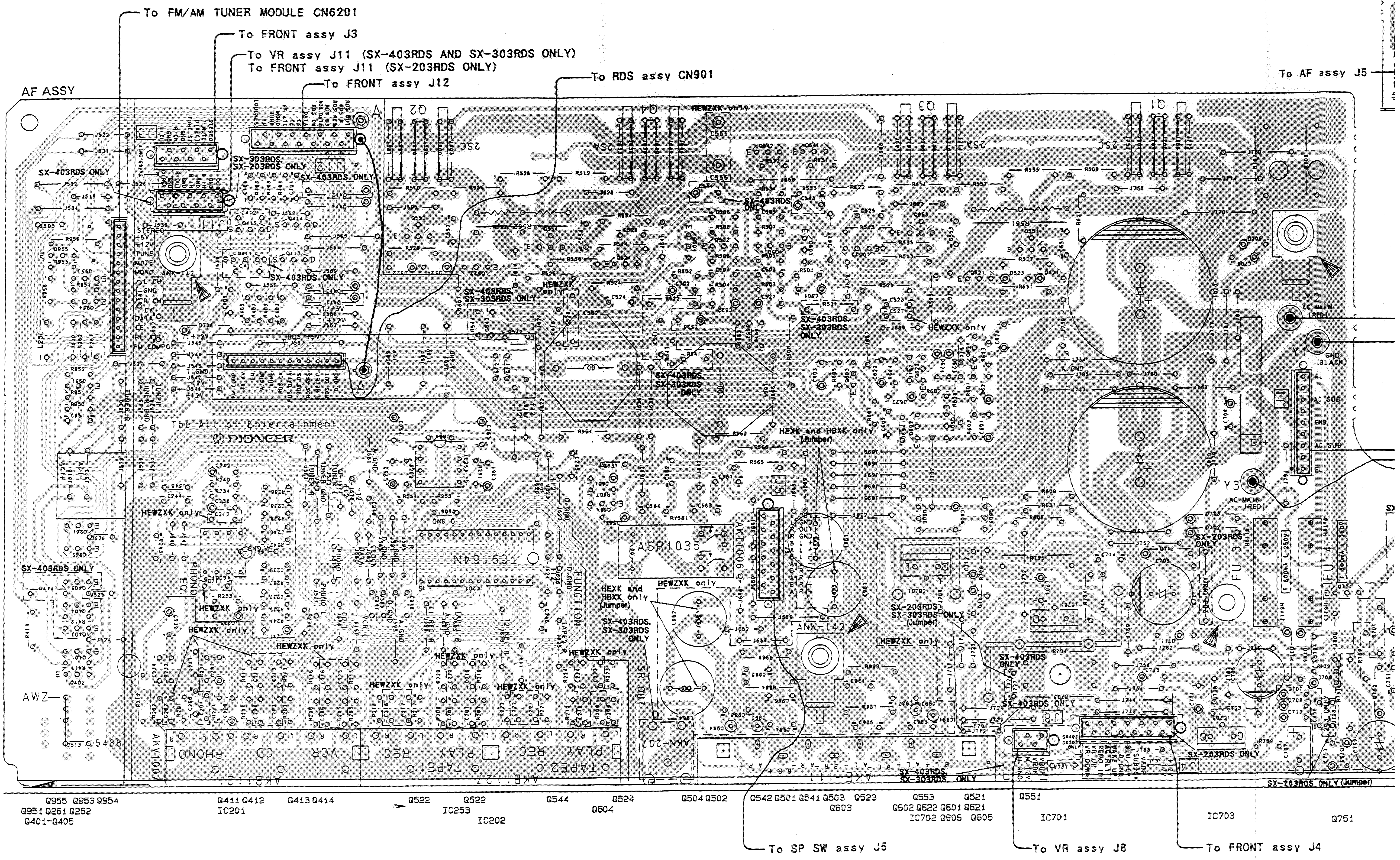
3.3 AF ASSY, SP SW ASSY, POWER SW ASSY AND TRANS ASSY

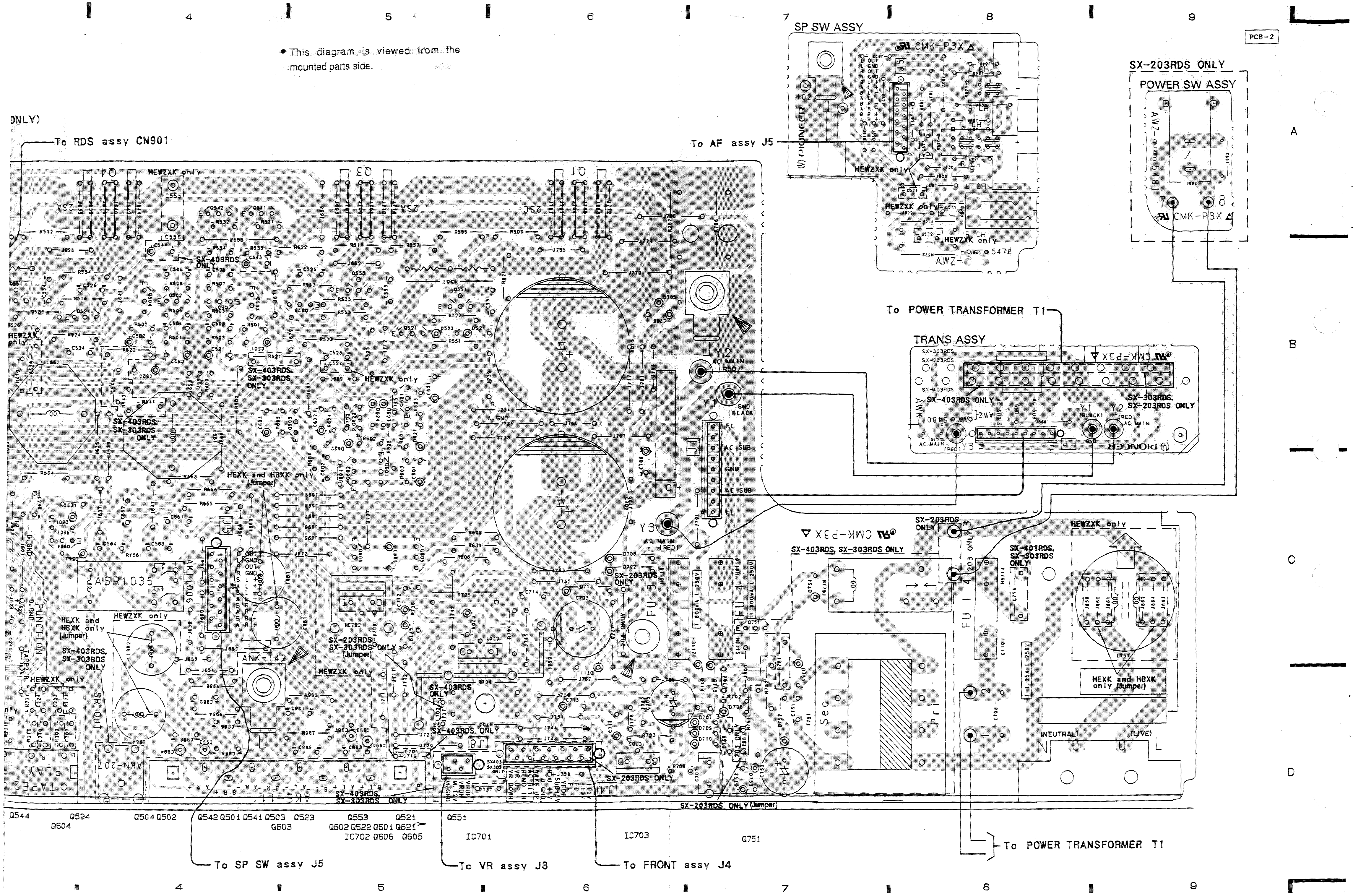
- This diagram is viewed from the foil side.


To FM/AM TUNER MODULE CN6201
To FRONT assy J3
To VR assy J11 (SX-403RDS AND SX-303RDS ONLY)
To FRONT assy J11 (SX-203RDS ONLY)
To FRONT assy J12
To RDS assy CN901
To AF assy J5
AF ASSY
The Art of Entertainment
PIONEER
HEWZXK only
HEXK and HBXK only (Jumper)
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
SX-403RDS ONLY
PLAY REC PLAY REC VCR CD PHONO
TAPE2 TAPE1
FUNCTION
ASR1035
NJU9160I
AC MAIN (RED)
GND (BLACK)
To FRONT assy J4
To VR assy J8
To SP SW assy J5
A
B
C
D
7
6
5
4
3
2
1

3.3 AF ASSY, SP SW ASSY, POWER SW ASSY AND TRANS ASSY

- This diagram is viewed from the mounted parts side.


To FM/AM TUNER MODULE CN6201
To FRONT assy J3
To VR assy J11 (SX-403RDS AND SX-303RDS ONLY)
To FRONT assy J11 (SX-203RDS ONLY)
To FRONT assy J12
To RDS assy CN901
To AF assy J5
AF ASSY
SX-403RDS ONLY
SX-303RDS, SX-203RDS ONLY
SX-403RDS ONLY
HEWZXK only
SX-403RDS, SX-303RDS ONLY
HEXK and HBXK only (Jumper)
ASR1035
AKT1006
ANK-142
TC9164N
IC202
PHONO EQ.
FUNCTION
SP OUT
AKN-207
AKV1007
AKB1127
AKE-111
SX-203RDS, SX-303RDS ONLY (Jumper)
SX-203RDS ONLY
SX-203RDS ONLY (Jumper)
The Art of Entertainment
PIONEER
AC MAIN (RED)
GND (BLACK)
AC SUB
FL
FU 3
FU 4
T 800mA L 250V
Y1
Y2
Y3
AWZ
Q1
Q2
Q3
Q4
Q955 Q953 Q954
Q951 Q261 Q252
Q401-Q405
Q411 Q412
IC201
Q413 Q414
Q522
Q522
IC253
IC202
Q544
Q524
Q604
Q504 Q502
Q542 Q501 Q541 Q503
Q603
Q523
Q553
Q602 Q522 Q601 Q621
IC702 Q606 Q605
Q521
Q551
IC701
IC703
Q751
To SP SW assy J5
To VR assy J8
To FRONT assy J4



• This diagram is viewed from the mounted parts side.

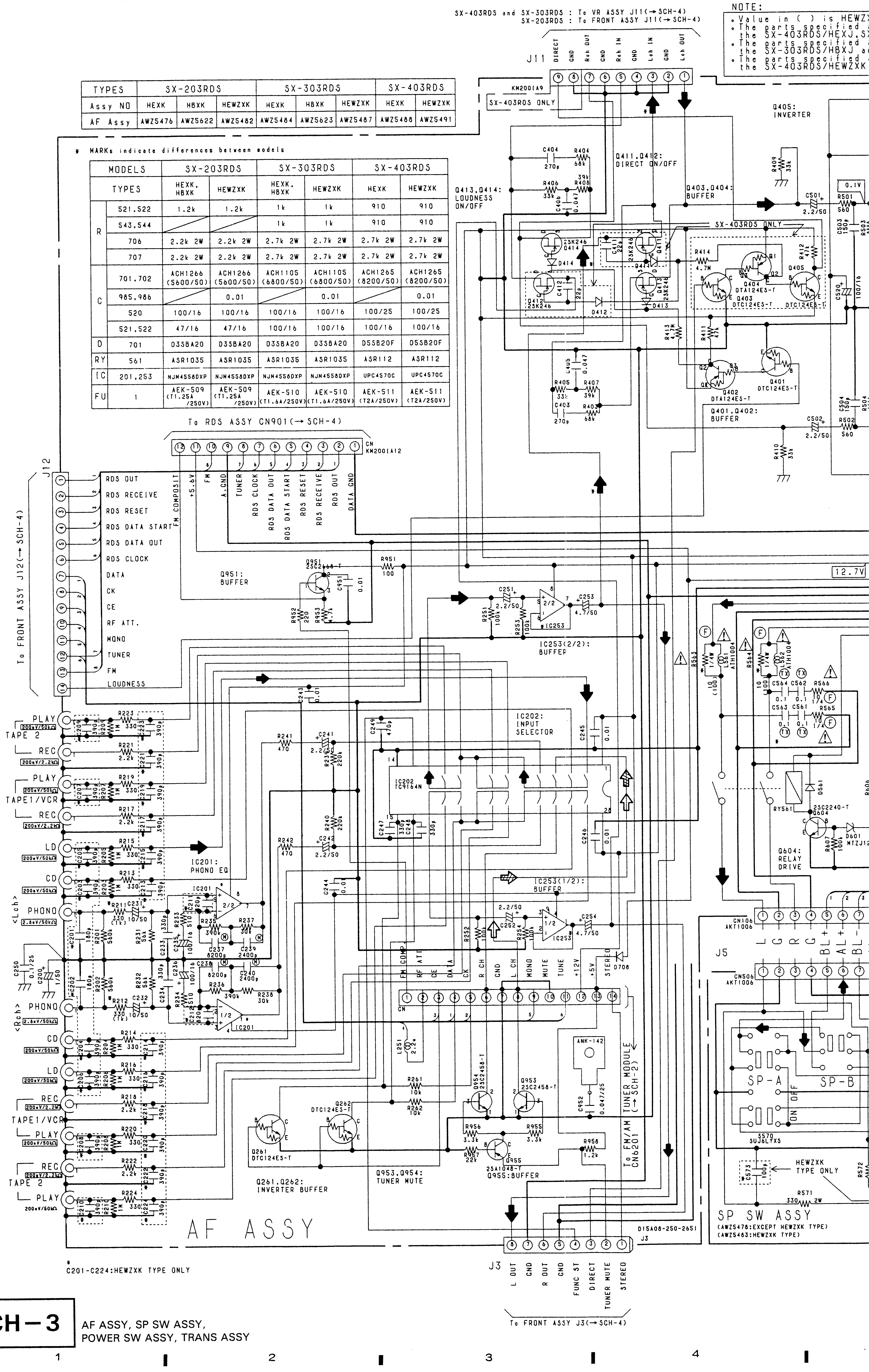
4
5
6
7
8
9
A
B
C
D
ONLY)
To RDS assy CN901
SP SW ASSY
To AF assy J5
CMK-P3X
HEWZXK only
AWZ-5478
SX-203RDS ONLY
POWER SW ASSY
AWZ-5481
CMK-P3X
To POWER TRANSFORMER T1
TRANS ASSY
SX-303RDS
SX-203RDS
SX-403RDS
SX-403RDS ONLY
SX-303RDS, SX-203RDS ONLY
AWZ-5450
AC MAIN (RED)
GND (BLACK)
Y1
Y2
Y3
FL
AC SUB
GND
J1
Q4
Q3
Q1
2SA
2SC
SX-403RDS ONLY
SX-403RDS, SX-303RDS ONLY
HEXK and HBXK only (Jumper)
J5
AKT1006
ASR1035
ANK-142
ARN-207
FUNCTION
PLAY
TAPE2
SR OUT
HEWZXK only
SX-203RDS, SX-303RDS ONLY (Jumper)
IC702
IC701
IC703
FU 3
FU 4
FU 1
T 800mA L 250V
T 1.25A L 250V
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
Sec
Pri
(NEUTRAL)
(LIVE)
N
L
HEXK and HBXK only (Jumper)
J8
J4
SX-203RDS ONLY (Jumper)
Q544
Q524
Q604
Q504 Q502
Q542 Q501 Q541 Q503 Q523
Q603
Q553
Q602 Q522 Q601 Q621
IC702 Q606 Q605
Q521
Q551
IC701
IC703
Q751
To SP SW assy J5
To VR assy J8
To FRONT assy J4
To POWER TRANSFORMER T1

TYPES	SX-203RDS			SX-303RDS			SX-403RDS	
Assy NO	HEXK	HBXK	HEWZXK	HEXK	HBXK	HEWZXK	HEXK	HEWZXK
AF Assy	AWZ5476	AWZ5622	AWZ5482	AWZ5484	AWZ5623	AWZ5487	AWZ5488	AWZ5491

* MARKs indicate differences between models

MODELS		SX-203RDS		SX-303RDS		SX-403RDS	
TYPES		HEXK, HBXK	HEWZXK	HEXK, HBXK	HEWZXK	HEXK	HEWZXK
R	521,522	1.2k	1.2k	1k	1k	910	910
	543,544			1k	1k	910	910
	706	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
	707	2.2k 2W	2.2k 2W	2.7k 2W	2.7k 2W	2.7k 2W	2.7k 2W
C	701,702	ACH1266 (5600/50)	ACH1266 (5600/50)	ACH1105 (6800/50)	ACH1105 (6800/50)	ACH1265 (8200/50)	ACH1265 (8200/50)
	985,986		0.01		0.01		0.01
	520	100/16	100/16	100/16	100/16	100/25	100/25
	521,522	47/16	47/16	100/16	100/16	100/16	100/16
D	701	D3SBA20	D3SBA20	D3SBA20	D3SBA20	D5SB20F	D5SB20F
RY	561	ASR1035	ASR1035	ASR1035	ASR1035	ASR112	ASR112
IC	201,253	NJM4558DXP	NJM4558DXP	NJM4558DXP	NJM4558DXP	UPC4570C	UPC4570C
FU	1	AEK-509 (T1.25A /250V)	AEK-509 (T1.25A /250V)	AEK-510 (T1.6A/250V)	AEK-510 (T1.6A/250V)	AEK-511 (T2A/250V)	AEK-511 (T2A/250V)

NOTE:
- Value in ( ) is HEWZ
- The parts specified the SX-403RDS/HEXJ,S
- The parts specified the SX-303RDS/HBXJ a
- The parts specified the SX-403RDS/HEWZXK

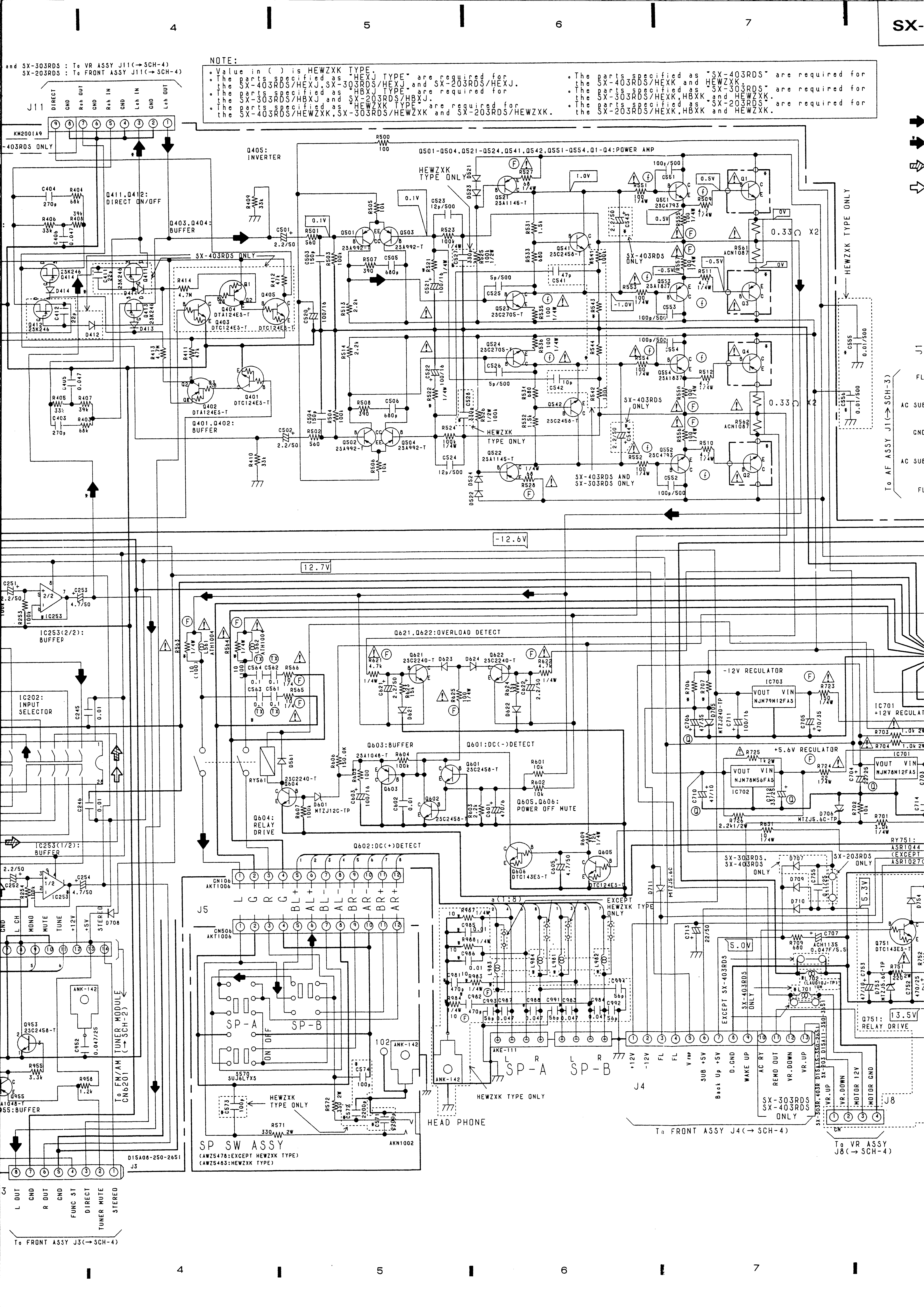

1
2
3
4
A
B
C
D
E
F
SX-403RDS and SX-303RDS : To VR ASSY J11(→SCH-4)
SX-203RDS : To FRONT ASSY J11(→SCH-4)
J11
DIRECT
GND
Rch OUT
GND
Rch IN
GND
Lch IN
GND
Lch OUT
KM200IA9
SX-403RDS ONLY
Q405: INVERTER
Q411,Q412: DIRECT ON/OFF
Q413,Q414: LOUDNESS ON/OFF
Q403,Q404: BUFFER
SX-403RDS ONLY
Q401,Q402: BUFFER
To RDS ASSY CN901(→SCH-4)
CN KM200IA12
FM COMPOSIT
+5.6V
FM
A.GND
TUNER
RDS CLOCK
RDS DATA OUT
RDS DATA START
RDS RESET
RDS RECEIVE
RDS OUT
DATA GND
J12
To FRONT ASSY J12(→SCH-4)
RDS OUT
RDS RECEIVE
RDS RESET
RDS DATA START
RDS DATA OUT
RDS CLOCK
DATA
CK
CE
RF ATT.
MONO
TUNER
FM
LOUDNESS
Q951: BUFFER
IC253(2/2): BUFFER
IC202: INPUT SELECTOR
IC202 TC9164N
IC201: PHONO EQ
IC253(1/2): BUFFER
PLAY
TAPE 2
REC
TAPE1/VCR
LD
CD
PHONO
<Lch>
<Rch>
FM COMP
RF ATT
CE
DATA
CK
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
ANK-142
TUNER MODULE (→SCH-2)
To FM/AM CN6201
Q261,Q262: INVERTER BUFFER
Q953,Q954: TUNER MUTE
Q955:BUFFER
AF ASSY
D15A08-250-2651
J3
L OUT
GND
R OUT
GND
FUNC ST
DIRECT
TUNER MUTE
STEREO
To FRONT ASSY J3(→SCH-4)
12.7V
0.1V
Q604: RELAY DRIVE
RY561
CN106 AKT1006
J5
CN506 AKT1006
L
G
R
G
BL+
AL+
BL-
SP-A
SP-B
ON
OFF
S570 SUJ8LYX5
HEWZXK TYPE ONLY
SP SW ASSY
(AWZ5478:EXCEPT HEWZXK TYPE)
(AWZ5483:HEWZXK TYPE)

*
C201-C224:HEWZXK TYPE ONLY

SCH-3

AF ASSY, SP SW ASSY,
POWER SW ASSY, TRANS ASSY

NOTE:
- Value in ( ) is HEWZXK TYPE.
- The parts specified as "HEXJ TYPE" are required for the SX-403RDS/HEXJ, SX-303RDS/HEXJ and SX-203RDS/HEXJ.
- The parts specified as "HBXJ TYPE" are required for the SX-303RDS/HBXJ and SX-203RDS/HBXJ.
- The parts specified as "HEWZXK TYPE" are required for the SX-403RDS/HEWZXK, SX-303RDS/HEWZXK and SX-203RDS/HEWZXK.
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK, HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK, HBXK and HEWZXK.


4
5
6
7
SX-
and SX-303RDS : To VR ASSY J11(→ SCH-4)
SX-203RDS : To FRONT ASSY J11(→ SCH-4)
J11
DIRECT
GND
Rch OUT
GND
Rch IN
GND
Lch IN
GND
Lch OUT
KM200IA9
-403RDS ONLY
Q405: INVERTER
Q411,Q412: DIRECT ON/OFF
Q403,Q404: BUFFER
SX-403RDS ONLY
Q401,Q402: BUFFER
Q501-Q504,Q521-Q524,Q541,Q542,Q551-Q554,Q1-Q4:POWER AMP
HEWZXK TYPE ONLY
0.1V
1.0V
0.5V
-0.5V
-1.0V
0V
0.33Ω X2
ACN1087
SX-403RDS ONLY
SX-403RDS AND SX-303RDS ONLY
HEWZXK TYPE ONLY
To AF ASSY J1(→ SCH-3)
-12.6V
12.7V
IC253(2/2): BUFFER
IC202: INPUT SELECTOR
IC253(1/2): BUFFER
Q621,Q622:OVERLOAD DETECT
Q603:BUFFER
Q601:DC(-)DETECT
Q605,Q606: POWER OFF MUTE
Q604: RELAY DRIVE
RY561
Q602:DC(+)DETECT
CN106 AKT1006
J5
CN506 AKT1006
L G R G BL+ AL+ BL- AL- BR- AR- BR+ AR+
-12V REGULATOR
IC703 NJM79M12FAS
+5.6V REGULATOR
IC702 NJM78M56FAS
IC701 +12V REGULATOR
NJM78M12FAS
RY751: ASR1044 (EXCEPT ASR1027C
SX-303RDS, SX-403RDS ONLY
SX-203RDS ONLY
5.3V
5.0V
13.5V
Q751: RELAY DRIVE
EXCEPT HEWZXK TYPE ONLY
EXCEPT SX-403RDS
SX-403RDS ONLY
SP-A
SP-B
S570 SUJ6LYXS
SP SW ASSY
(AWZS478:EXCEPT HEWZXK TYPE)
(AWZS463:HEWZXK TYPE)
HEWZXK TYPE ONLY
ANK-142
HEAD PHONE
AKE-111
AKN1002
J4
+12V -12V FL FL Vfsp SUB +5V Back Up +5V D.GND WAKE UP AC RY REMO OUT VR.DOWN VR.UP
SX-303RDS SX-403RDS ONLY
To FRONT ASSY J4(→ SCH-4)
VR.UP VR.DOWN MOTOR 12V MOTOR GND
J8
To VR ASSY J8(→ SCH-4)
TUNER MODULE (→ SCH-2)
To FM/AM CN6201
GND L CH MONO TUNE +12V +5V STEREO
Q953 2SC2458-T
Q955
55:BUFFER
D15A08-250-2651
J3
L OUT GND R OUT GND FUNC ST DIRECT TUNER MUTE STEREO
To FRONT ASSY J3(→ SCH-4)
FL
AC SUB
GND
AC SUB
FL

XK TYPE.
as "HEXJ TYPE" are required for
X-303RDS/HEXJ and SX-203RDS/HEXJ.
as "HBXJ TYPE" are required for
nd SX-203RDS/HBXJ.
as "HEWZXK TYPE" are required for
,SX-303RDS/HEWZXK and SX-203RDS/HEWZXK.

- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.

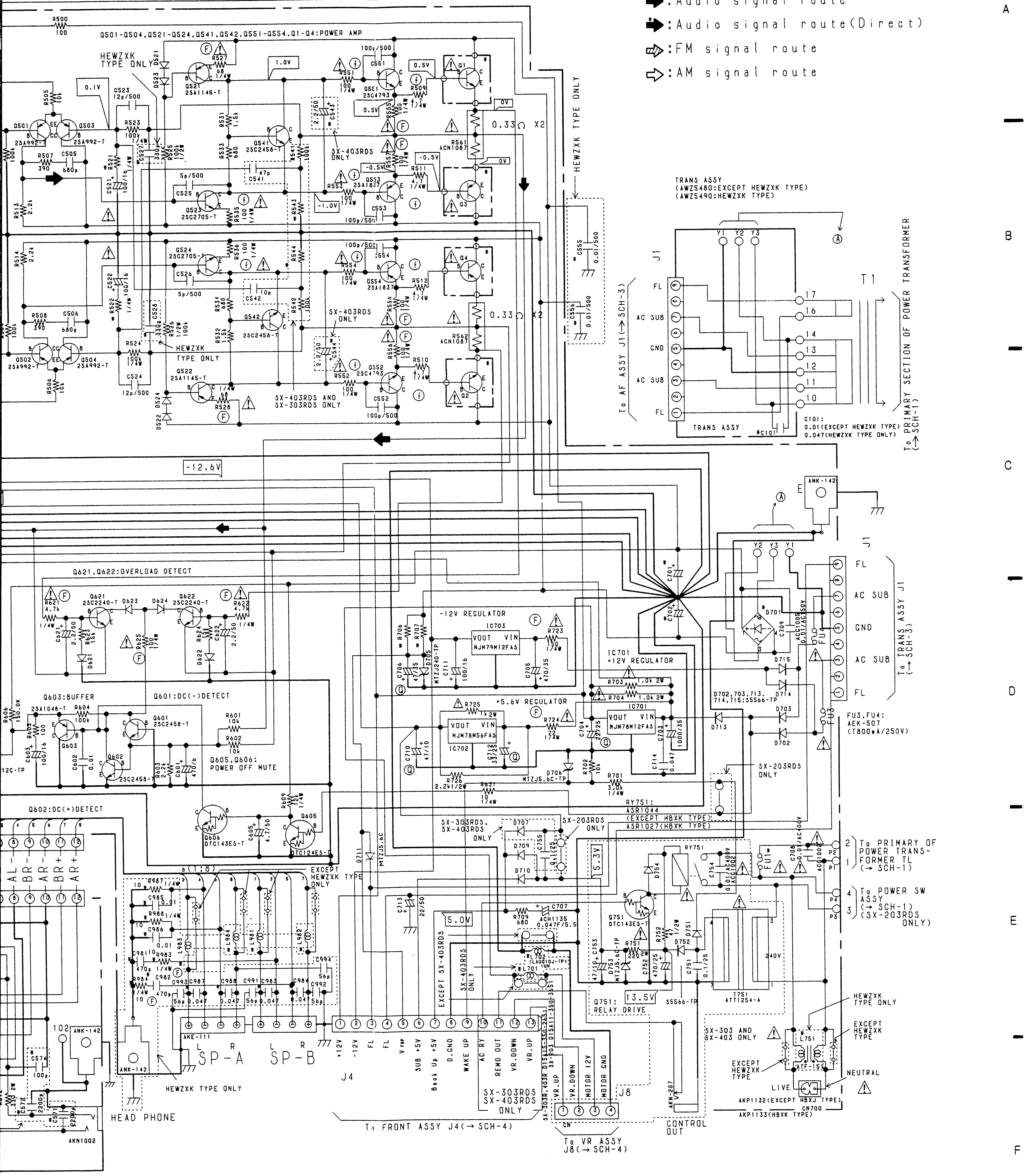
SCH-3

➡:Audio signal route

➡:Audio signal route(Direct)

⇨:FM signal route

⇨:AM signal route


R500 100
Q501-Q504,Q521-Q524,Q541,Q542,Q551-Q554,Q1-Q4:POWER AMP
HEWZXK TYPE ONLY
D521
D523
R527 68 1/4W
Q521 2SA1145-T
1.0V
0.1V
C523 12p/500
R505 10k
Q501
Q503
2SA992-T
R523 100k
R507 390
C505 680p
R521
C521 100/16
R513 2.2k
R531 1.5k
R533 680
Q541 2SC2458-T
R525 100k 1/2W
C527 330p
5p/500
C525
Q523 2SC2705-T
R535 100 1/4W
C541 47p
R541 100k
R543
2.2/50
C543
SX-403RDS ONLY
R551 100 1/4W
100p/500
C551
Q551 2SC4793
0.5V
R509 10 1/4W
R555 4.7 1/4W
R557 10 1/4W
-0.5V
-0.5V
R511 4.7 1/4W
R553 100 1/4W
Q553 2SA1837
-1.0V
C553
100p/500
Q1
Q3
0V
0.33Ω X2
R561 ACN1087
HEWZXK TYPE ONLY
C555 0.01/500
R514 2.2k
C522 100/16
Q524 2SC2705-T
R536 100 1/4W
C526 5p/500
R544
100p/500
C554
R554 100 1/4W
Q554 2SA1837
R512 4.7 1/4W
Q4
R534 680
R532 1.5k
C542 10p
Q542 2SC2458-T
R542 100k
C528 330p
R526 100k 1/2W
R508 390
C506 680p
R522
R524 100k
HEWZXK TYPE ONLY
SX-403RDS ONLY
2.2/50
C544
R556 4.7 1/4W
R558 10 1/4W
0.33Ω X2
R562 ACN1087
C556 0.01/500
Q502 2SA992-T
Q504 2SA992-T
R506 10k
C524 12p/500
Q522 2SA1145-T
R528 68 1/4W
D524
D522
R552 100 1/4W
Q552 2SC4793
R510 4.7 1/4W
C552 100p/500
Q2
SX-403RDS AND SX-303RDS ONLY
-12.6V
TRANS ASSY (AWZ5480:EXCEPT HEWZXK TYPE) (AWZ5490:HEWZXK TYPE)
Y1 Y2 Y3
Ⓐ
J1
FL
AC SUB
GND
AC SUB
FL
To AF ASSY J1(→SCH-3)
T1
17 16 14 13 12 11 10
TRANS ASSY
C101
C101: 0.01(EXCEPT HEWZXK TYPE) 0.047(HEWZXK TYPE ONLY)
To PRIMARY SECTION OF POWER TRANSFORMER (→ SCH-1)
E
ANK-142
Ⓐ
Y2 Y3 Y1
J1
FL
AC SUB
GND
AC SUB
FL
To TRANS ASSY J1 (→ SCH-3)
C701
C702
D701
C709
ACG1005 0.01/AC150V
FU4
D715
D714
D702,703,713,714,715:SS566-TP
D703
D713
D702
FU3
FU3,FU4: AEK-507 (T800mA/250V)
Q621,Q622:OVERLOAD DETECT
R621 4.7k 1/4W
Q621 2SC2240-T
D623
D624
Q622 2SC2240-T
R622 4.7k 1/4W
C621 2.2/50
R623 15k
D621
R625 10k 1/4W
R624 15k
C622 2.2/50
D622
-12V REGULATOR
IC703
VOUT VIN
NJM79M12FAS
R723 150 1/4W
R706
R707
C706 47/35
D705 MTZJ24C-TP
C711 100/16
C705 470/35
IC701 +12V REGULATOR
R703 1.0k 2W
R704 1.0k 2W
IC701
VOUT VIN
NJM78M12FAS
C703 1000/35
C704 22/25
C714 0.047
+5.6V REGULATOR
R725 1k 2W
VOUT VIN
NJM78M56FAS
IC702
C712 33/25
R724 22 1/4W
C710 47/10
D706 MTZJ5.6C-TP
R702 10k
R701 3.0k 1/4W
R726 2.2k 1/2W
R631 10 1/4W
SX-203RDS ONLY
RY751: ASR1044 (EXCEPT HBXK TYPE) ASR1027(HBXK TYPE)
Q603:BUFFER
R606 150.0k
2SA1048-T
R604 100k
R605 100
C603 100/16
Q603
C602 0.01
Q602
2SC2458-T
R603 2.2k
C601 470/6
Q601:DC(-)DETECT
Q601 2SC2458-T
R601 10k
R602 10k
Q605,Q606: POWER OFF MUTE
12C-TP
Q602:DC(+)DETECT
R609 12k
Q605
Q606 DTC143ES-T
C605 4.7/50
DTC124ES-T
D711
MTZJ5.6C
AL- BR- AR- BR+ AR+
a(1:8)
EXCEPT HEWZXK TYPE ONLY
R987 10 1/4W
C985 0.01
R988 10 1/4W
C986 0.01
L983
L984
L981
L982
R981
R983 10 1/4W
R984 10 1/4W
C981 470p
C982 470p
C993 C987 C988 C991 C983 C984 C992 C994
56p 0.047
SX-303RDS, SX-403RDS ONLY
D707
D709
C755
SX-203RDS ONLY
D710
5.3V
C713 22/50
5.0V
R709 680
C707 ACH1135 0.047F/5.5
L702 (LAU010J-TP)
L701 10M
EXCEPT SX-403RDS
SX-403RDS ONLY
RY751
D754
C754 0.01/AC400V ACG1002
FU1
C708 0.01/AC400V ACG1002
P2 P1 P4 P3
2 1 To PRIMARY OF POWER TRANS-FORMER TL (→ SCH-1)
4 3 To POWER SW ASSY (→ SCH-1) (SX-203RDS ONLY)
Q751 DTC143ES-T
R751 220 2W
C753 47/10
D753 MTZJ5.6C-TP
C752 47/25
R752 47 1/2W
D751
D752
C751 0.1/25
240V
T751 ATT1254-A
Q751: RELAY DRIVE
13.5V
SS566-TP
HEWZXK TYPE ONLY
EXCEPT HEWZXK TYPE
SX-303 AND SX-403 ONLY
L751
ATF-15C
EXCEPT HEWZXK TYPE
NEUTRAL
LIVE
AKP1132(EXCEPT HBXJ TYPE)
AKP1133(HBXK TYPE)
CN700
102
ANK-142
C574 100p
C572 2200p
C571 2200p
330 2W
AKN1002
ANK-142
HEAD PHONE
HEWZXK TYPE ONLY
AKE-111
L R L R
SP-A SP-B
J4
1 2 3 4 5 6 7 8 9 10 11 12 13
+12V -12V FL FL Vf SUB +5V Back Up +5V D.GND WAKE UP AC RY REMO OUT VR.DOWN VR.UP
SX-303RDS SX-403RDS ONLY
SX-303R,403R D1S,L15-350-2SL1 SX-203 D1SA11-350-3SL1
VR.UP VR.DOWN MOTOR 12V MOTOR GND
J8
1 2 3 4
CW
To FRONT ASSY J4(→ SCH-4)
CONTROL OUT
AKN-207
To VR ASSY J8(→ SCH-4)
A B C D E F

AF ASSY, SP SW ASSY, POWER SW ASSY, TRANS ASSY

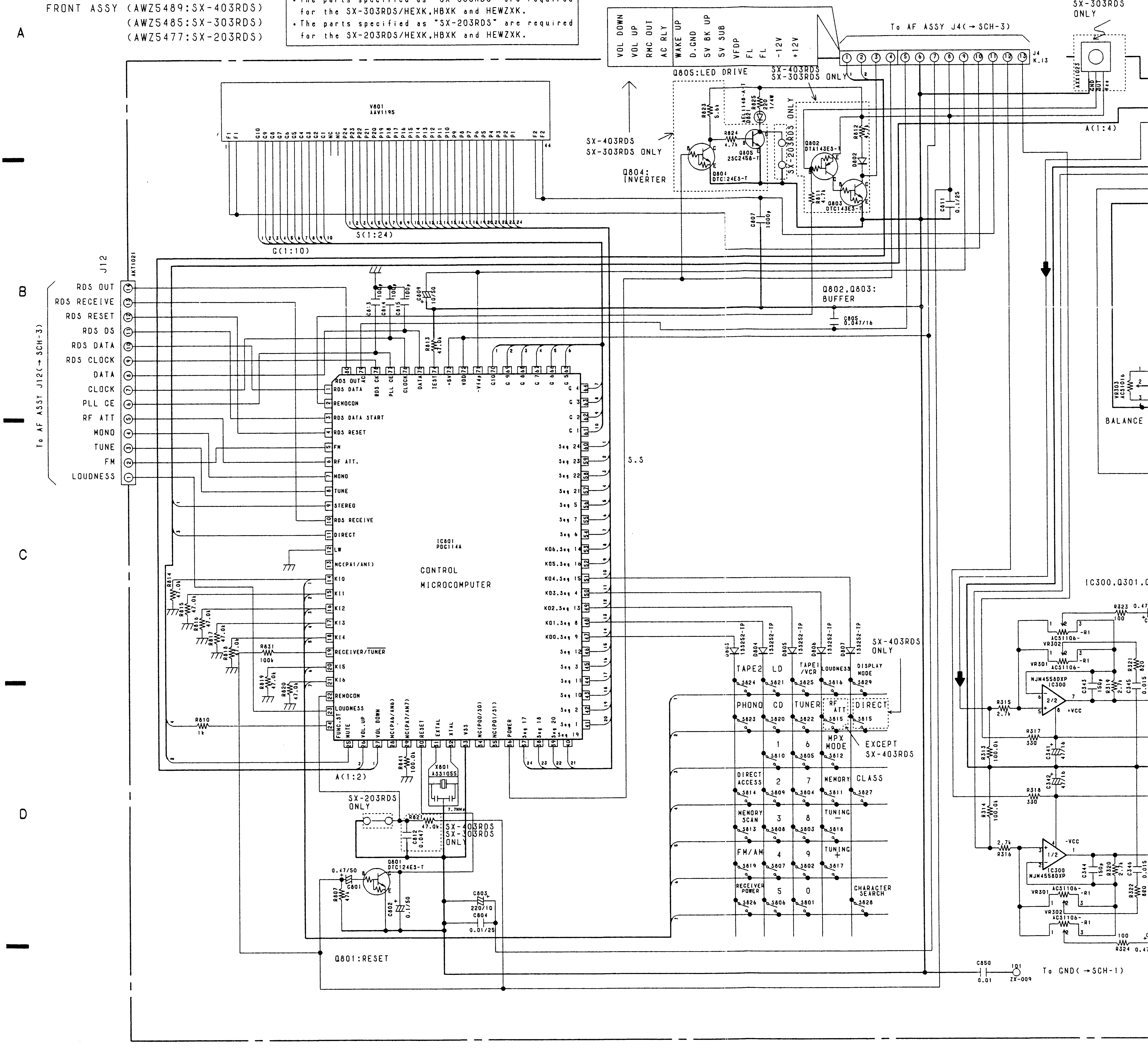
SCH−3

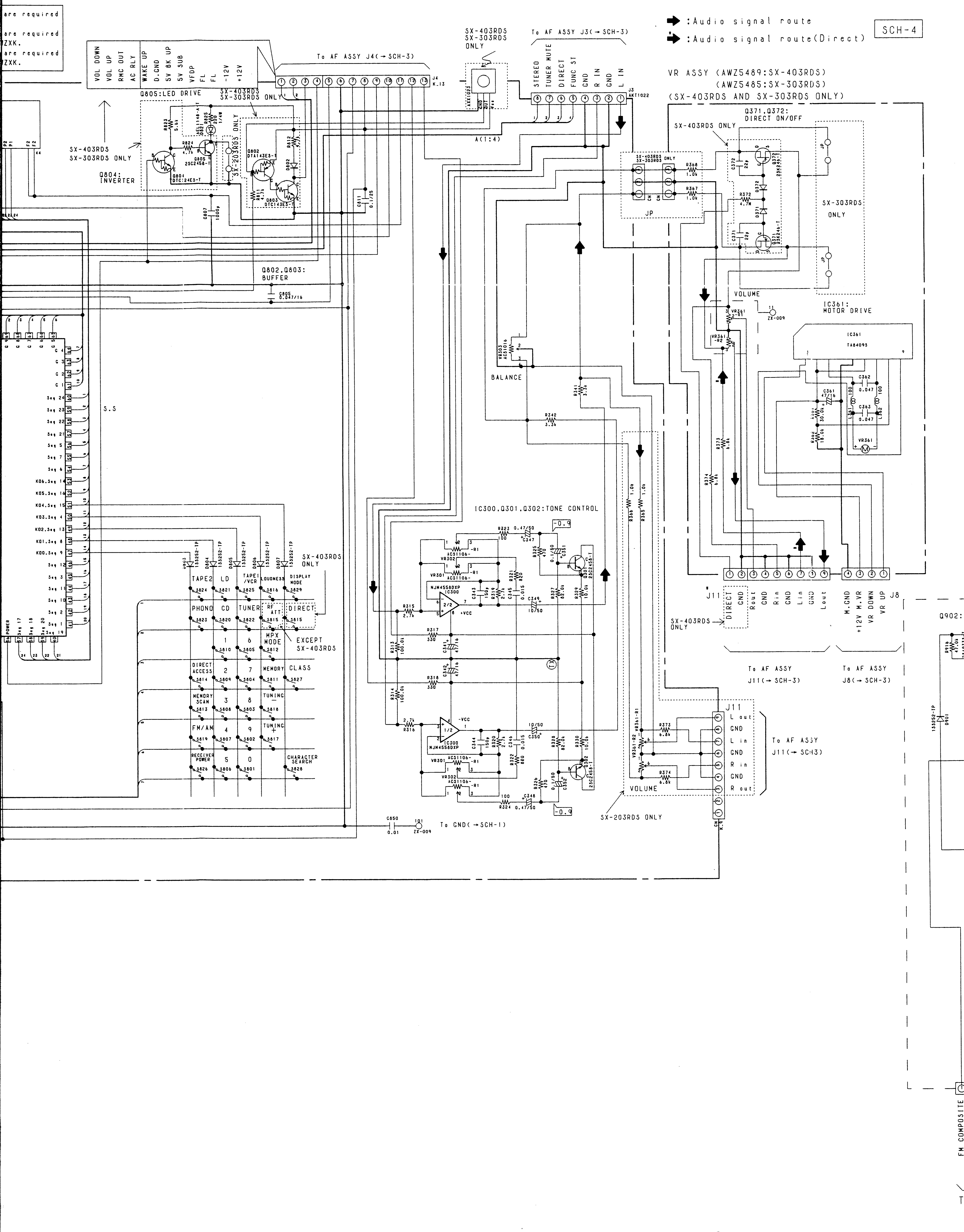
3.4 FRONT ASSY, VR ASSY AND RDS ASSY

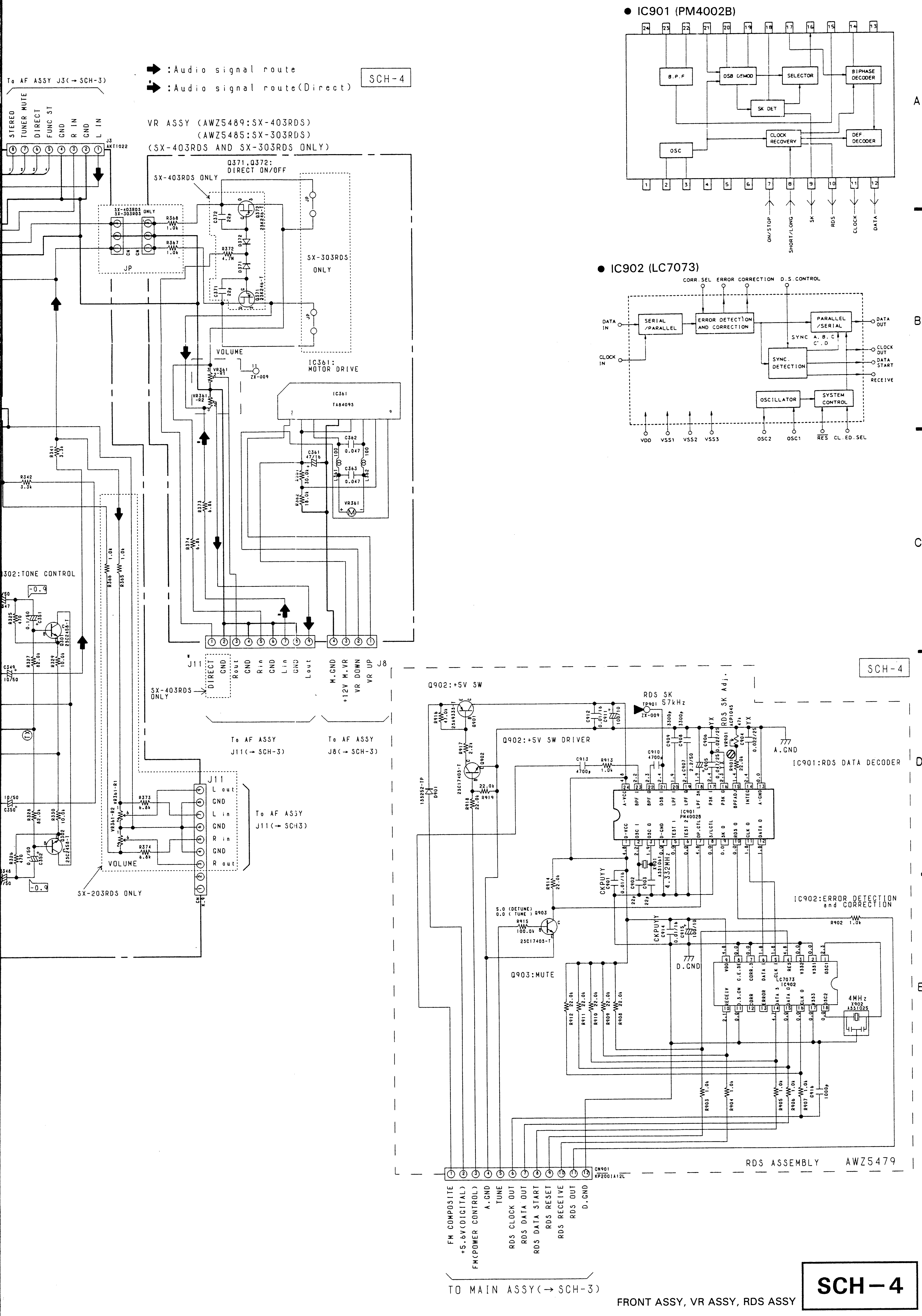
NOTE:

- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXK.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXK and HEWZXK.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXK and HEWZXK.

FRONT ASSY (AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(AWZ5477:SX-203RDS)

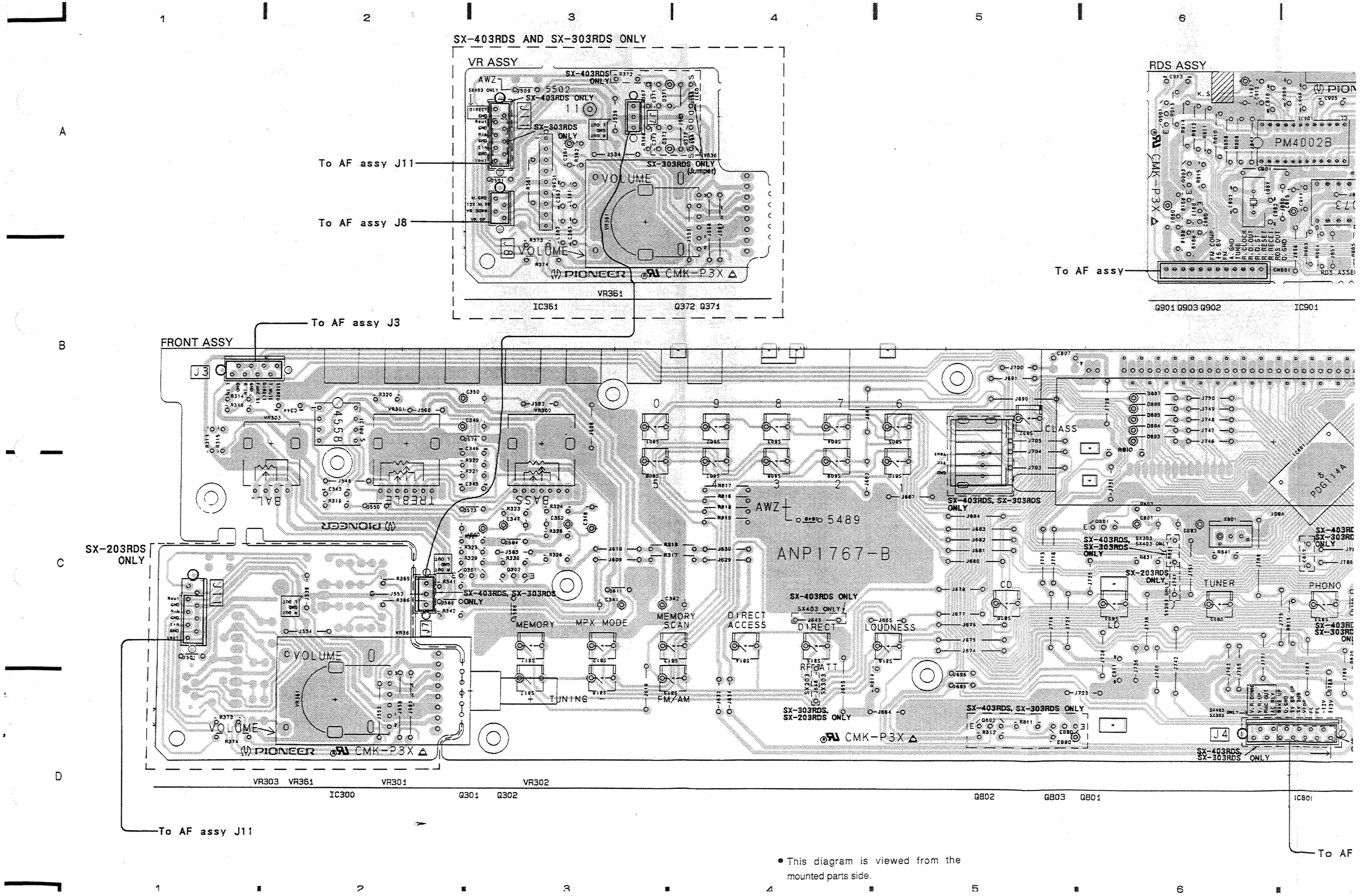

A
B
C
D
E
F
VOL DOWN
VOL UP
RMC OUT
AC RLY
WAKE UP
D.GND
SV BK UP
SV SUB
VFDP
FL
FL
-12V
+12V
To AF ASSY J4(→SCH-3)
SX-403RDS
SX-303RDS
ONLY
Q805:LED DRIVE
SX-403RDS
SX-303RDS ONLY
SX-203RDS ONLY
SX-403RDS
SX-303RDS ONLY
Q804:
INVERTER
Q802,Q803:
BUFFER
A(1:4)
V801
AAV1195
S(1:24)
G(1:10)
J12
AKT1021
RDS OUT
RDS RECEIVE
RDS RESET
RDS DS
RDS DATA
RDS CLOCK
DATA
CLOCK
PLL CE
RF ATT
MONO
TUNE
FM
LOUDNESS
To AF ASSY J12(→SCH-3)
IC801
PDC114A
CONTROL
MICROCOMPUTER
S.S
A(1:2)
SX-203RDS
ONLY
SX-403RDS
SX-303RDS
ONLY
Q801
DTC124ES-T
Q801:RESET
X801
ASS1055
7.7MHz
SX-403RDS
ONLY
TAPE2
LD
TAPE1 /VCR
LOUDNESS
DISPLAY MODE
PHONO
CD
TUNER
RF ATT
DIRECT
MPX MODE
EXCEPT
SX-403RDS
DIRECT ACCESS
MEMORY
CLASS
MEMORY SCAN
TUNING −
FM/AM
TUNING +
RECEIVER POWER
CHARACTER SEARCH
BALANCE
IC300,Q301
NJM4558DXP
IC300
VR301
VR302
VR303
C850
0.01
101
ZX-009
To GND(→SCH-1)


:Audio signal route
:Audio signal route(Direct)
SCH-4
are required
are required
ZXK.
are required
ZXK.
VOL DOWN
VOL UP
RMC OUT
AC RLY
WAKE UP
D.GND
5V BK UP
5V SUB
VFDP
FL
FL
-12V
+12V
To AF ASSY J4(→SCH-3)
J4
Q805:LED DRIVE
SX-403RDS
SX-303RDS ONLY
SX-403RDS
SX-303RDS ONLY
Q804:
INVERTER
SX-203RDS ONLY
Q802 DTA143ES-T
Q803 DTC143ES-T
Q804 DTC124ES-T
Q805 2SC2458-T
Q802,Q803:
BUFFER
SX-403RDS
SX-303RDS
ONLY
To AF ASSY J3(→SCH-3)
STEREO
TUNER MUTE
DIRECT
FUNC ST
GND
R IN
GND
L IN
J3
A(1:4)
VR ASSY (AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(SX-403RDS AND SX-303RDS ONLY)
Q371,Q372:
DIRECT ON/OFF
SX-403RDS ONLY
JP
SX-303RDS
ONLY
VOLUME
ZX-009
IC361:
MOTOR DRIVE
IC361
TA8409S
VR361
BALANCE
S.S
IC300,Q301,Q302:TONE CONTROL
NJM4558DXP
IC300
SX-403RDS
ONLY
TAPE2
LD
TAPE1 /VCR
LOUDNESS
DISPLAY MODE
PHONO
CD
TUNER
RF ATT
DIRECT
1
6
MPX MODE
EXCEPT
SX-403RDS
DIRECT ACCESS
2
7
MEMORY
CLASS
MEMORY SCAN
3
8
TUNING −
FM/AM
4
9
TUNING +
RECEIVER POWER
5
0
CHARACTER SEARCH
POWER
J11
DIRECT
GND
Rout
GND
Rin
GND
Lin
GND
Lout
M.GND
+12V M.VR
VR DOWN
VR UP
J8
SX-403RDS
ONLY
To AF ASSY
J11(→SCH-3)
To AF ASSY
J8(→SCH-3)
J11
L out
GND
L in
GND
R in
GND
R out
To AF ASSY
J11(→SCH3)
VOLUME
SX-203RDS ONLY
To GND(→SCH-1)
C850
0.01
ZX-009
Q902:
FM COMPOSITE


IC901 (PM4002B)
B.P.F
DSB DEMOD
SELECTOR
BIPHASE DECODER
SK DET
OSC
CLOCK RECOVERY
DEF DECODER
ON/STOP
SHORT/LONG
SK
RDS
CLOCK
DATA
IC902 (LC7073)
CORR. SEL
ERROR CORRECTION
D.S. CONTROL
DATA IN
SERIAL /PARALLEL
ERROR DETECTION AND CORRECTION
PARALLEL /SERIAL
DATA OUT
SYNC A, B, C, C', D
CLOCK IN
SYNC. DETECTION
CLOCK OUT
DATA START
RECEIVE
OSCILLATOR
SYSTEM CONTROL
VDD
VSS1
VSS2
VSS3
OSC2
OSC1
RES
CL. ED. SEL
:Audio signal route
:Audio signal route(Direct)
SCH-4
To AF ASSY J3(→ SCH-3)
STEREO
TUNER MUTE
DIRECT
FUNC ST
GND
R IN
GND
L IN
J3 AKT1022
VR ASSY (AWZ5489:SX-403RDS)
(AWZ5485:SX-303RDS)
(SX-403RDS AND SX-303RDS ONLY)
Q371,Q372: DIRECT ON/OFF
SX-403RDS ONLY
SX-403RDS SX-303RDS ONLY
JP
SX-303RDS ONLY
VOLUME
IC361: MOTOR DRIVE
IC361 TA8409S
ZX-009
VR361
R341 3.3k
R342 3.3k
R373 6.8k
R374 6.8k
R366 1.0k
R365 1.0k
R368 1.0k
R367 1.0k
R372 4.7M
C361 47/16
C362 0.047
C363 0.047
Q302:TONE CONTROL
-0.9
J11
DIRECT
GND
Rout
GND
Rin
GND
Lin
GND
Lout
M.GND
+12V M.VR
VR DOWN
VR UP
J8
SX-403RDS ONLY
To AF ASSY J11(→ SCH-3)
To AF ASSY J8(→ SCH-3)
L out
GND
L in
GND
R in
GND
R out
To AF ASSY J11(→ SCH3)
VOLUME
SX-203RDS ONLY
Q902:+5V SW
Q902:+5V SW DRIVER
RDS SK 57kHz
TP901
RDS SK Adj.
A.GND
IC901:RDS DATA DECODER
IC901 PM4002B
4.332MHz
CKPUYY
5.0 (DETUNE) 0.0 (TUNE) Q903
R915 100.0k
2SC1740S-T
Q903:MUTE
D.GND
IC902:ERROR DETECTION and CORRECTION
R902 1.0k
LC7073 IC902
4MHz X902
RDS ASSEMBLY AWZ5479
CN901 KP2001A12L
FM COMPOSITE
+5.6V(DIGITAL)
FM(POWER CONTROL)
A.GND
TUNE
RDS CLOCK OUT
RDS DATA OUT
RDS DATA START
RDS RESET
RDS RECEIVE
RDS OUT
D.GND
TO MAIN ASSY(→ SCH-3)
A
B
C
D
E
F

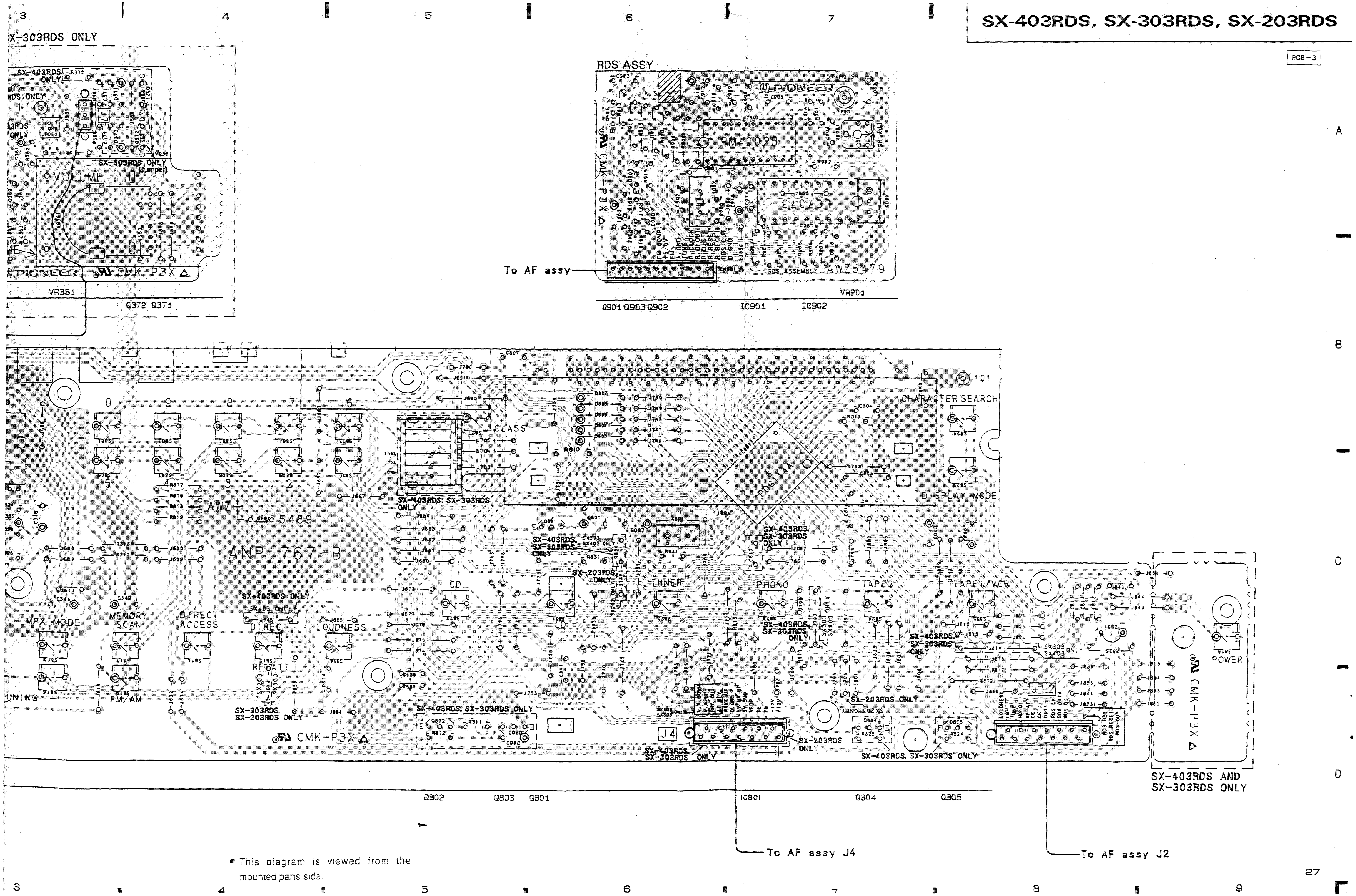
SCH-4

FRONT ASSY, VR ASSY, RDS ASSY

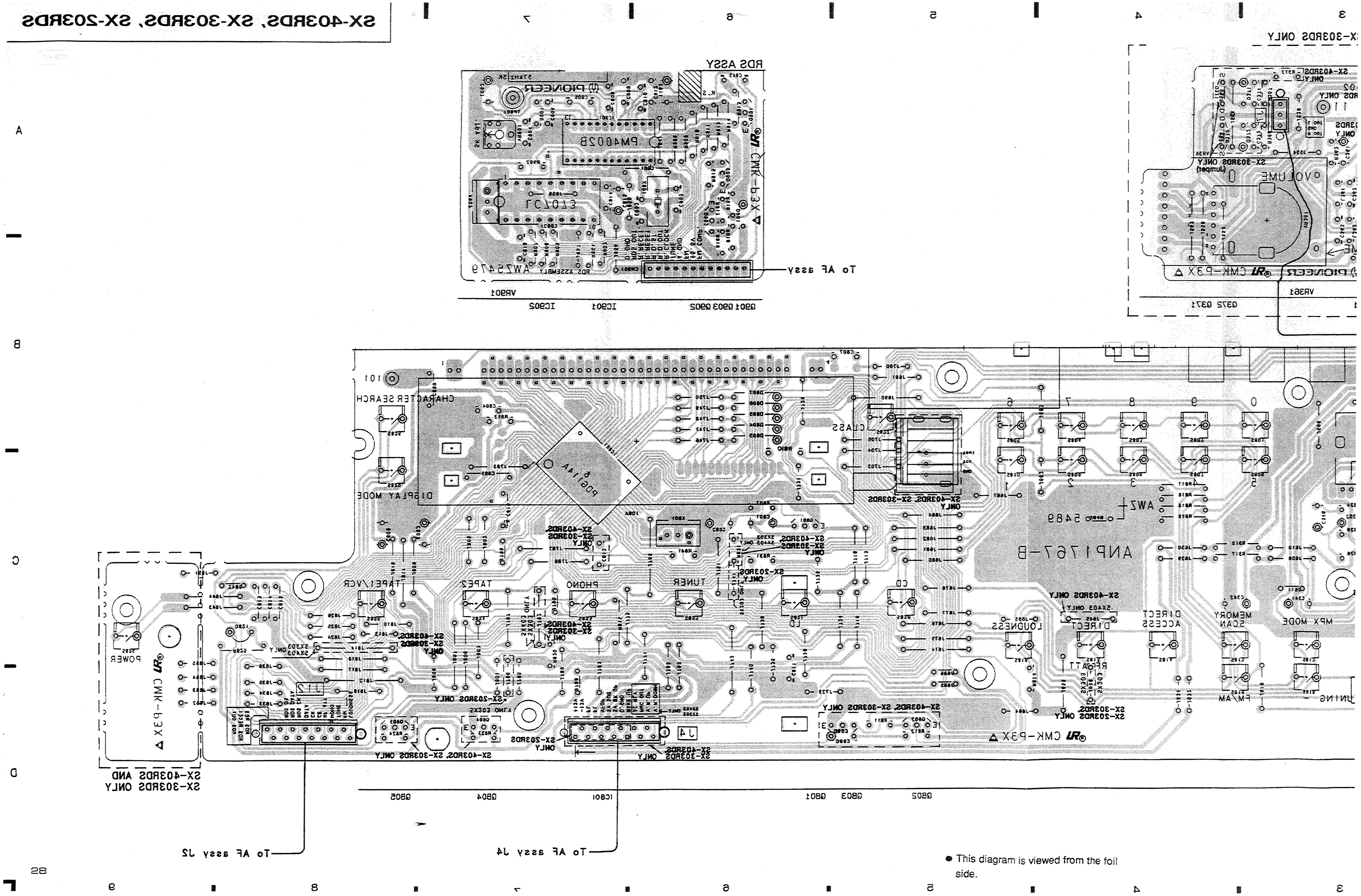

1
2
3
4
5
6
A
B
C
D
SX-403RDS AND SX-303RDS ONLY
VR ASSY
AWZ
SX-403RDS ONLY
SX-303RDS ONLY
SX-303RDS ONLY (Jumper)
VOLUME
5502
To AF assy J11
To AF assy J8
PIONEER
CMK-P3X
VR361
IC361
Q372 Q371
RDS ASSY
PM4002B
To AF assy
Q901 Q903 Q902
IC901
To AF assy J3
FRONT ASSY
J3
4558
VR301
VR302
VR303
BAL
TREBLE
BASS
0
9
8
7
6
5
4
3
2
1
CLASS
AWZ
5489
ANP1767-B
SX-403RDS, SX-303RDS ONLY
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
SX-203RDS ONLY
SX-403RDS, SX-303RDS ONLY
J7
MEMORY
MPX MODE
MEMORY SCAN
DIRECT ACCESS
SX-403RDS ONLY
DIRECT
LOUDNESS
RF ATT
TUNING
FM/AM
SX-303RDS, SX-203RDS ONLY
SX-403RDS, SX-303RDS ONLY
CD
LD
TUNER
PHONO
PDG114A
J4
SX-403RDS, SX-303RDS ONLY
VR303 VR361
IC300
VR301
Q301 Q302
VR302
Q802
Q803 Q801
IC801
To AF assy J11
To AF

• This diagram is viewed from the mounted parts side.

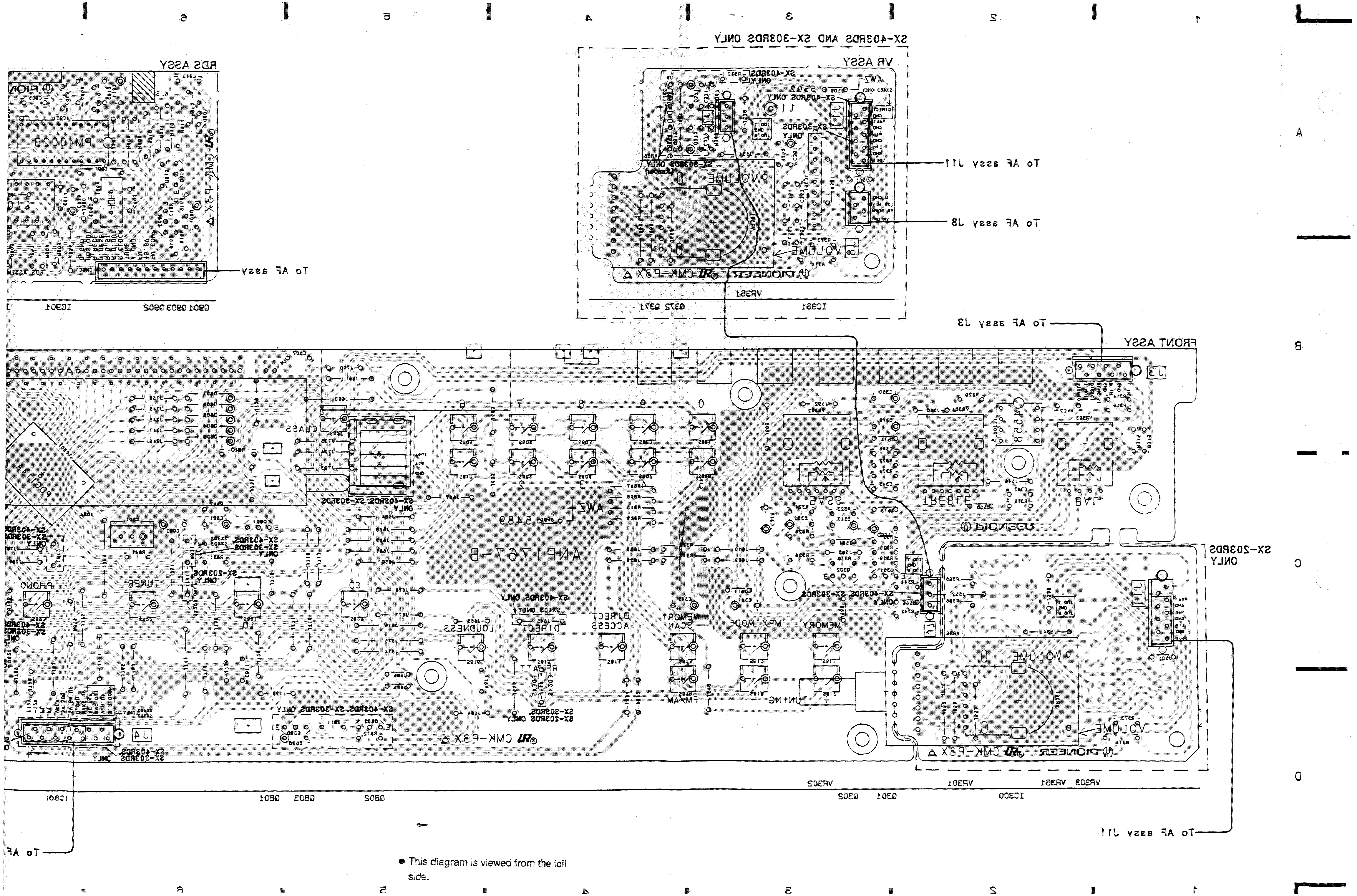
PCB-3


3
4
5
6
7
8
9
A
B
C
D
X-303RDS ONLY
SX-403RDS ONLY
SX-303RDS ONLY (Jumper)
VOLUME
PIONEER
CMK-P3X
VR361
Q372 Q371
RDS ASSY
PM4002B
LC7073
57kHz SK
SK ADJ.
RDS ASSEMBLY AWZ5479
To AF assy
Q901 Q903 Q902
IC901
IC902
VR901
CHARACTER SEARCH
CLASS
DISPLAY MODE
PDG114A
AWZ 5489
ANP1767-B
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
CD
TUNER
PHONO
TAPE2
TAPE1/VCR
LD
MPX MODE
MEMORY SCAN
DIRECT ACCESS
DIRECT
LOUDNESS
RF ATT
TUNING
FM/AM
POWER
J4
J12
SX-403RDS AND SX-303RDS ONLY
Q802
Q803
Q801
IC801
Q804
Q805
To AF assy J4
To AF assy J2

• This diagram is viewed from the mounted parts side.


RDS ASSY
PIONEER
PM4002B
CMK-P3X
AWZ5479
RDS ASSEMBLY
To AF assy
VR901
IC902
IC901
Q901 Q903 Q902
SX-303RDS ONLY
SX-403RDS ONLY
VOLUME
VR361
Q372 Q371
CHARACTER SEARCH
DISPLAY MODE
PDG114A
CLASS
AWZ 5489
ANP1767-B
SX-403RDS, SX-303RDS ONLY
SX-203RDS ONLY
TAPE1/VCR
TAPE2
PHONO
TUNER
CD
LD
LOUDNESS
DIRECT
DIRECT ACCESS
MEMORY SCAN
MPX MODE
RF ATT
FM/AM
POWER
SX-403RDS AND SX-303RDS ONLY
J12
J14
Q805
Q804
IC801
Q801
Q803
Q802
To AF assy J2
To AF assy J4
A
B
C
D
3
4
5
6
7
8
9
0

This diagram is viewed from the foil side.


6
5
4
3
2
1
A
B
C
D
SX-403RDS AND SX-303RDS ONLY
VR ASSY
To AF assy J11
To AF assy J8
RDS ASSY
To AF assy
PM4002B
IC901
Q901 Q903 Q902
VOLUME
CMK-P3X
PIONEER
VR361
Q372 Q371
IC361
To AF assy J3
FRONT ASSY
J3
CLASS
PDG114A
BASS
TREBLE
BAL
4558
AWZ
5489
ANP1767-B
SX-203RDS ONLY
PHONO
TUNER
CD
LD
LOUDNESS
DIRECT
DIRECT ACCESS
MEMORY SCAN
MPX MODE
MEMORY
RF ATT
TUNING
FM/AM
J4
SX-403RDS, SX-303RDS ONLY
SX-203RDS, SX-303RDS ONLY
J11
VR302
VR301
VR361 VR303
Q302 Q301
IC300
IC801
Q801 Q803 Q801
Q802
To AF
To AF assy J11

● This diagram is viewed from the foil side.

4. PCB PARTS LIST
(FOR SX−403RDS/HEXK, SX−303RDS/HEXK AND SX−203RDS/HEXK)

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

  560Ω → 56 × 10^1 → 561 .... RD1/8PM $\boxed{5}\,\boxed{6}\,\boxed{1}$ *J*

  47kΩ → 47 × 10^3 → 473 .... RD1/4PS $\boxed{4}\,\boxed{7}\,\boxed{3}$ *J*

  0.5Ω → 0R5 .... RN2H $\boxed{0}\,\boxed{R}\,\boxed{5}$ *K*

  1Ω → 010 .... RS1P $\boxed{0}\,\boxed{1}\,\boxed{0}$ *K*

  Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

  5.62kΩ → 562 × 10^1 → 5621 .... RM1/4PC $\boxed{5}\,\boxed{6}\,\boxed{2}\,\boxed{1}$ *F*

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
NSP		AF COMPLEX ASSY (For SX−403RDS)	AWK1819
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5488
		├─FRONT ASSY	AWZ5489
		└─VR ASSY	AWZ5502
NSP		AF COMPLEX ASSY (For SX−303RDS)	AWK1817
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5484
		├─FRONT ASSY	AWZ5485
		└─VR ASSY	AWZ5486
NSP		AF COMPLEX ASSY (For SX−203RDS)	AWK1815
		├─SP SW ASSY	AWZ5478
		├─RDS ASSY	AWZ5479
		├─TRANS ASSY	AWZ5480
		├─AF ASSY	AWZ5476
		├─FRONT ASSY	AWZ5477
		└─POWER SW ASSY	AWZ5481
		FM/AM TUNER MODULE	AXQ3227
SP SW ASSY			
SWITCHES AND RELAYS			
	S570		SUJ6LYXS
RESISTORS			
	R571, R572		RS2LMF331J
OTHERS			
		JACK (HEADPHONE)	AKN1002
RDS ASSEMBLY			
SEMICONDUCTORS			
	IC902		LC7073
	IC901		PM4002B
	Q901		2SA933S
	Q902, Q903		2SC1740S
	D901		1SS252

Mark	No.	Description	Parts No.
CAPACITORS			
	C902, C903		CCDCH220J50
	C911, C915		CEAS101M10
	C907		CEAS2R2M50
	C916		CKDYB102K50
	C908, C909		CKDYB332K50
	C910, C913		CKDYB472K50
	C904, C906		CKDYX223M25
	C905		CKDYX473M25
	C901, C912, C914		CKPUYY103M16
RESISTORS			
	VR901	(2.2k)	ACP1045
	Other Resistors		RD1/8PM□□□J
OTHERS			
	X902	(4.00MHZ)	ASS1025
	X901	(4.332MHZ)	ASS1061
	CN901	12P SOCKET	KP20OIA12L
TRANS ASSY			
CAPACITORS			
	C101		CQMXA103J100
OTHERS			
		CABLE HOLDER (9P)	AKT1082
AF ASSY			
SEMICONDUCTORS			
	IC201	(For SX−403RDS)	UPC4570C
	IC201	(For SX−303RDS and SX−203RDS)	NJM4558DXP
	IC701		NJM78M12FAS
	IC702		NJM78M56FAS
	IC703		NJM79M12FA
	IC202		TC9164N
	IC253	(For SX−403RDS)	UPC4570C
	IC253	(For SX−303RDS and SX−203RDS)	NJM4558DXP
	Q603, Q955		2SA1048
	Q521, Q522		2SA1145
	Q553, Q554		2SA1837
	Q501−Q504		2SA992
	Q604, Q621, Q622		2SC2240
	Q541, Q542, Q601, Q602		2SC2458
	Q953, Q954		2SC2458
	Q951		2SC2668

Mark	No.	Description	Parts No.
	Q523, Q524		2SC2705
	Q551, Q552		2SC4793
	Q411, Q412	(SX−403RDS only)	2SK246
	Q413, Q414		2SK246
	Q402		DTA124ES
	Q404	(SX−403RDS only)	DTA124ES
	Q261, Q262, Q401		DTC124ES
	Q403, Q405	(SX−403RDS only)	DTC124ES
	Q605		DTC124ES
	Q606		DTC143ES
	Q751	(SX−403RDS and SX−303RDS only)	DTC143ES
	D411, D412	(SX−403RDS only)	1SS252
	D413, D414, D521−D524, D561		1SS252
	D621−D624, D708−D710		1SS252
	D707, D751, D754	(SX−403RDS and SX−303RDS only)	1SS252
	D701	(For SX−403RDS)	D5SB20F
	D701	(For SX−303RDS and SX−203RDS)	D3SBA20 (A)
	D601		MTZJ12C
	D705		MTZJ24D
	D711		MTZJ5.6C
	D706		MTZJ5.6C
	D753	(SX−403RDS and SX−303RDS only)	MTZJ5.6C
	D702, D703, D713−D715		S5566
	D752	(SX−403RDS and SX−303RDS only)	S5566
COILS AND FILTERS			
	L251		LAU2R2J
	L561, L562	(0.7uH)	ATH1004
	L701, L702	(SX−403RDS only)	LAU010J
TRANSFORMERS			
	T751	(SX−403RDS and SX−303RDS only)	ATT1254
SWITCHES AND RELAYS			
	RY561	(For SX−403RDS)	ASR−112
	RY561	(For SX−303RDS and SX−203RDS)	ASR1035
	RY751	(SX−403RDS and SX−303RDS only)	ASR1044
CAPACITORS			
⚠	C708	(0.01/AC400V)	ACG1002
⚠	C754	(0.01/AC400V) (SX−403RDS and SX−303RDS only)	ACG1002
	C709	(0.01/AC150V)	ACG1005
	C707	(0.047F/5.5)	ACH1135
	C701, C702	(8200/50) (For SX−403RDS)	ACH1265
	C701, C702	(6800/50) (For SX−303RDS)	ACH1105
	C701, C702	(5600/50) (For SX−203RDS)	ACH1266
	C542	(SX−403RDS and SX−303RDS only)	CCCSL100C50
	C525, C526		CCCSL050C500
	C551−C554		CCCSL101K500
	C523, C524		CCCSL120K500
	C503, C504		CCCSL151J50
	C403, C404		CCCSL271J50
	C411, C412	(SX−403RDS only)	CCPUSL220J50
	C541	(SX−403RDS and SX−303RDS only)	CCPUSL470J50
	C200		CEAS010M50
	C231, C232		CEAS100M50
	C235, C236, C603, C711		CEAS101M16
	C703		CEAS102M35
	C713		CEAS220M50
	C241, C242, C251, C252		CEAS2R2M50
	C543, C544	(SX−403RDS only)	CEAS2R2M50
	C621, C622		CEAS2R2M50
	C753	(SX−403RDS and SX−303RDS only)	CEAS470M10
	C752	(SX−403RDS and SX−303RDS only)	CEAS471M25
	C705		CEAS471M35
	C601		CEAS471M6
	C253, C254, C605		CEAS4R7M50
	C521, C522	(For SX−403RDS)	CEEA101M16
	C521, C522	(For SX−303RDS)	CEAS101M16
	C521, C522	(For SX−203RDS)	CEAS470M16
	C501, C502	(For SX−403RDS)	CEEA2R2M50
	C501, C502	(For SX−303RDS and SX−203RDS)	CEAS2R2M50
	C704		CEHAQ220M25
	C712		CEHAQ330M25
	C710		CEHAQ470M10
	C706		CEHAQ470M35
	C520	(For SX−403RDS)	CEXA101M25
	C520	(For SX−303RDS and SX−203RDS)	CEAS101M16
	C561−C564		CFTXA104J50
	C405, C406		CFTXA473J50
	C243−C246, C602		CKCYF103Z50
	C714		CKCYF473Z50
	C751, C755	(For SX−403RDS and SX−303RDS only)	CKCYX104M25
	C505, C506		CKDYB681K50
	C951		CKDYF103Z50
	C250		CKDYX104M25
	C952		CKDYX473M25
	C233, C234, C247, C248		CKPUYB331K50
	C249		CKPUYB471K50
	C239, C240		CQMA242J50
	C237, C238		CQMA822J50
RESISTORS			
⚠	R561, R562	(0.33/5W)	ACN−139
	R525, R526		RD1/2PM104J
	R726		RD1/2PM222J
	R752	(SX−403RDS and SX−303RDS only)	RD1/2PM470J
	R631		RD1/4PM100J
	R523, R524		RD1/4PM104J
	R609		RD1/4PM123J
	R701		RD1/4PM302J
	R521, R522	(For SX−403RDS)	RD1/4PM911J
	R521, R522	(For SX−303RDS)	RD1/4PM102J
	R521, R522	(For SX−203RDS)	RD1/4PM122J
⚠	R563−R566		RD1/4PMF100J
⚠	R555−R558, R625		RD1/4PMF101J
⚠	R621, R622		RD1/4PMF472J
⚠	R527, R528		RD1/4PMF680J
⚠	R535, R536, R551−R554		RFA1/4PS101J
⚠	R723		RFA1/4PS151J
⚠	R724		RFA1/4PS220J
⚠	R509−R512		RFA1/4PS4R7J
⚠	R703, R704, R725		RS2LMF102J
⚠	R751	(SX−403RDS and SX−303RDS only)	RS2LMF221J
	R706, R707	(For SX−403RDS and SX−303RDS)	RS2LMF272J
	R706, R707	(For SX−203RDS)	RS2LMF222J
	R412	(SX−403RDS only)	RD1/8PM473J
	R414	(SX−403RDS only)	RD1/8PM475J
	R541, R542	(SX−403RDS and SX−303RDS only)	RD1/8PM104J
	R543, R544	(For SX−403RDS)	RD1/8PM911J
	R543, R544	(For SX−303RDS)	RD1/8PM102J
	Other Resistors		RD1/8PM□□□J

Mark	No.	Description	Parts No.

OTHERS

		PIN JACK 6P (PHONO, CD, VCR)	AKB1121
		PIN JACK 8P (TAPE1 PLAY/REC, TAPE2 PLAY/REC)	AKB1127
		SPEAKER TERMINAL 8-P	AKE-111
		JACK (CONTROL OUT) (SX-403RDS and SX-303RDS only)	AKN-207
	CN700	AC INLET (1P)	AKP1132
		CABLE HOLDER (9P)	AKT1082
		HEAT SINK	ANH-575
		SCREW	BBZ30P080FMC
	CN302	12P PLUG	KM200IA12

FRONT ASSY

SEMICONDUCTORS

	IC300		NJM4558DXP
	IC801		PDG114A
	Q301, Q302		2SC2458
	Q805 (SX-403RDS and SX-303RDS only)		2SC2458
	Q802 (SX-403RDS and SX-303RDS only)		DTA143ES
	Q801		DTC124ES
	Q804 (SX-403RDS and SX-303RDS only)		DTC124ES
	Q803 (SX-403RDS and SX-303RDS only)		DTC143ES
	D802 (SX-403RDS and SX-303RDS only)		1SS252
	D803-D807		1SS252
	D821	(RED)	AEL1148

SWITCHES AND RELAYS

	S801-S825, S827-S829		ASG1029
	S826 (SX-403RDS and SX-303RDS only)		ASG1029

CAPACITORS

	C343, C344		CCDSL151J50
	C349, C350		CEAS100M50
	C351, C352, C802		CEJA0R1M50
	C809		CEJA100M50
	C803		CEJA221M10
	C341, C342		CEJA470M16
	C347, C348, C801		CEJAR47M50
	C345, C346		CFTXA153J50
	C811		CKDYX104M25
	C813-C815		CKPUYB101K50
	C807		CKPUYB102K50
	C804, C850		CKPUYF103Z25
	C805, C816		CKPUYF473Z16
	C812 (SX-403RDS and SX-303RDS only)		CKPUYF473Z16

RESISTORS

	VR303	(500k-B)	ACS1016
	VR301, VR302	(30k-B5 × 2)	ACS1106
	VR361 (SX-203RDS only)		ACT1071
	R825		RD1/4PM221J
	R365, R366 (SX-203RDS only)		RD1/8PM102J
	R373, R374 (SX-203RDS only)		RD1/8PM682J
	R811, R812, R824 (SX-403RDS and SX-303RDS only)		RD1/8PM472J
	R821 (SX-403RDS and SX-303RDS only)		RD1/8PM473J
	R823 (SX-403RDS and SX-303RDS only)		RD1/8PM562J
	Other Resistors		RD1/8PM□□□J

Mark	No.	Description	Parts No.

OTHERS

	V801	FL TUBE	AAV1195
		CABLE HOLDER (3P) (For SX-403RDS and SX-303RDS)	AKT1076
	X801	(7.70MHZ)	ASS1055
		REMOTE RECEIVER UNIT (SX-403RDS and SX-303RDS only)	AXX1023

VR ASSY (SX-403RDS and SX-303RDS only)

SEMICONDUCTORS

	IC361		TA8409S
	Q371, Q372 (SX-403RDS only)		2SK246
	D371, D372 (SX-403RDS only)		1SS252

COILS AND FILTERS

	L361, L362		LAU101K

CAPACITORS

	C371, C372 (SX-403RDS only)		CCPUSL220J50
	C361		CEAS470M16
	C362, C363		CKPUYF473Z16

RESISTORS

	VR361	(100k-A5 × 2)	ACX1069
	R372 (SX-403RDS only)		RD1/8PM475J
	Other Resistors		RD1/8PM□□□J

OTHERS

		CABLE HOLDER (3P)	AKT1076

POWER SW ASSY (SX-203RDS only)

CAPACITORS

	C651	(0.01/AC400V)	ACG1003

SWITCHES AND RELAYS

	S651		ASG1035

FM/AM TUNER MODULE

SEMICONDUCTORS

	IC6201		LA1836M
	IC6202		LM7001J
	Q6102		2SC2223
	Q6203		2SC2235
	Q6202		2SC2712
	Q6103, Q6214		2SC2714
	Q6201		2SK208
	Q6104, Q6105		2SK302
	Q6101		3SK194
	Q6204		XDA124EK
	Q6215, Q6217		XDC124EK
	D6101, D6102, D6104		1SV228
	D6201		HVU187

COILS AND FILTERS

	L6106		ATC1003
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019

Mark	No.	Description	Parts No.
	T6101		ATE−063
	L6207	(F=10.7MHZ)	ATE1013
	F6204		ATF−107
	F6203		ATF−119
	F6202	(F=450KHZ)	ATF1155
	L6107		ATH1043
	L6209		LCTA221J3225
	L6201, L6202, L6203, L6208		LCTA2R2J3225

CAPACITORS

	C6234, C6236, C6254, C6269		ACG1051
	C6235		ACG1052
	C6120		CCSCH060D50
	C6229		CCSCH821J50
	C6111		CCSQCH010C50
	C6112, C6122		CCSQCH020C50
	C6118		CCSQCH080D50
	C6113, C6203		CCSQCH101J50
	C6116, C6208, C6221, C6222		CCSQCH150J50
	C6117		CCSQCH330J50
	C6105		CCSQSL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6106, C6107		CCSQTH270J50
	C6262		CEAS100M50
	C6231, C6233		CEAS3R3M50
	C6216, C6217		CEAS330M16
	C6219		CEAS470M10
	C6243, C6244, C6245		CEAS470M16
	C6227		CEAS470M25
	C6246		CEEA100M50
	C6224		CEEA101M25
	C6261		CEJA010M50
	C6238		CEJA100M16
	C6249, C6250		CEJA4R7M35
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6125, C6204, C6207		CKSQYB102K50
	C6102, C6114, C6115, C6121, C6124		CKSQYB103K50
	C6210, C6253, C6264		CKSQYB103K50
	C6213		CKSQYB223K50
	C6230		CKSQYB273K50
	C6228		CKSQYB472K50
	C6209, C6237		CKSQYB473K50
	C6251, C6252		CKSQYB682K50
	C6212, C6218		CKSQYF103Z50
	C6220, C6226, C6239, C6242, C6255		CKSQYF223Z50
	C6241		CKSQYF473Z50
	C6123		CKSYB103K50
	C6232		CKSYB273K50
	C6223		CKSYF103Z50
	C6263		CKSYF473Z50

RESISTORS

	VR6201	(10k)	ACP1056
	VR6202		VRTB6VS223
	R6299, R6300		RD1/8PM102J
	R6115, R6119, R6123, R6127, R6268		RS1/8S000J
	R6269−R6273, R6275, R6276, R6278		RS1/8S000J
	R6283, R6284, R6289, R6290, R6293		RS1/8S000J
	R6294, R6297, R6303		RS1/8S000J
	R6243, R6244		RS1/8S101J
	R6211		RS1/8S103J
	R6247		RS1/8S152J

Mark	No.	Description	Parts No.
	R6237		RS1/8S182J
	R6209		RS1/8S221J
	R6239		RS1/8S332J
	R6112		RS1/8S473J
	Other Resistors		RS1/10S☐☐☐J

OTHERS

		2P TERMINAL WITH PAL	AKA1017
	X6203	(7.200MHZ)	ASS1042
	X6201	(456kHZ)	ASS1066
	X6202	(450kHZ)	ATF1027
		AM RF TUNING BLOCK	AXX1041

5. ADJUSTMENTS

FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) of IC6201 becomes 0V±50mV.
2	Front End Sensitivity	98	10−30	98MHz	L6104 L6105*1 L6102 T6101	Adjust so that the DC voltage between Pin12 (or ⊕ leads of C6238) of IC6201 (S-meter) and GND becomes at maximum level.
3	TUNED IND. Lighting Level	98	15±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.
4	SK Level Adjustment	88 EXTERNAL *2 (RDS SG)	60	88MHz NORMAL (RF ATT ON)	VR901	Adjust so that the output level 57kHz between TP901 and GND becomes maximum.

*1 : HEWZXK type only
*2 : RDS SG (AUDIO, PILOT, RDS, BK and DK: OFF, SK: ON)

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM → FM.*

AM TUNER SECTION

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999	47±2	999kHz	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

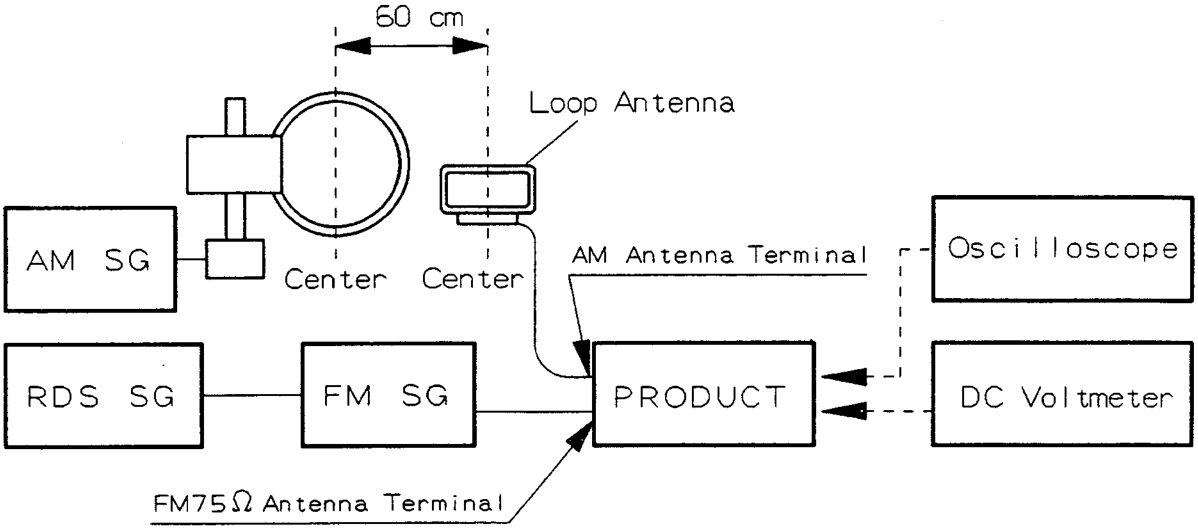
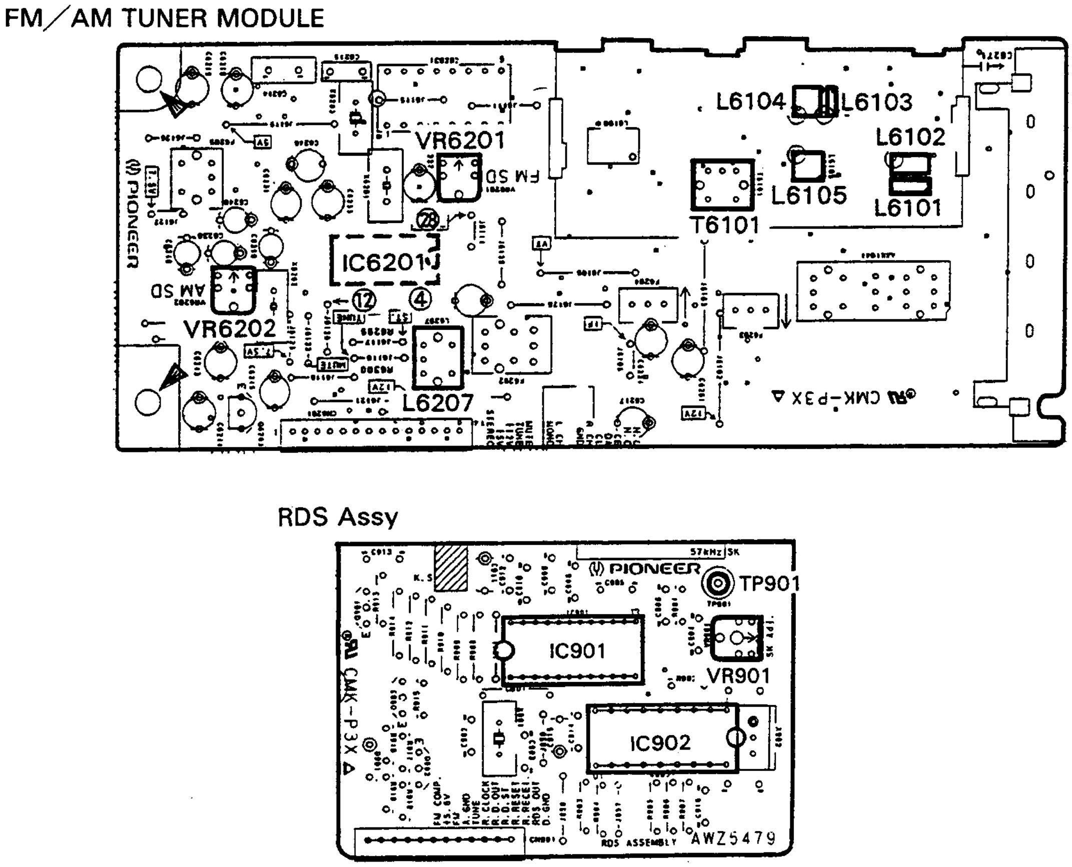

60 cm
Loop Antenna
AM SG
Center
Center
AM Antenna Terminal
Oscilloscope
RDS SG
FM SG
PRODUCT
DC Voltmeter
FM75Ω Antenna Terminal

Fig. 1 FM and AM Adjustment Wiring Diagram


FM／AM TUNER MODULE

RDS Assy
L6104
L6103
L6102
L6105
L6101
T6101
VR6201
FM SD
IC6201
⑫
④
AM SD
VR6202
L6207
PIONEER
CMK-P3X
TP901
IC901
VR901
IC902
AWZ5479

Fig. 2 Adjustment Points

7. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG114A (IC801)
CONTROL MICROCOMPUTER

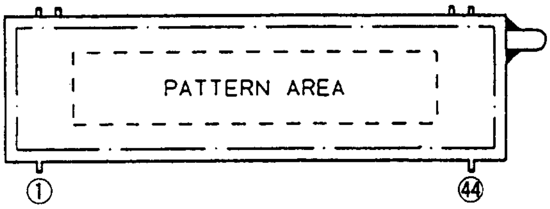
●Pin Function

No.	NAME	I/O	FUNCTION	ACT
1	RDS DATA	I	Data from LC7073 input	—
2	REMOCON	I	Remote control signal input	—
3	RDS DATA START	I	Synchronizing signal of each block from LC7073 input	—
4	RDS RESET	O	Reset signal output to LC7073 when receiving frequency converted	⊔
5	FM	O	FM BAND select output	H
6	RF ATT	O	RF ATT ON/OFF output	H
7	MONO	O	FM MONO output	H
8	TUNE	I	TUNE indicator signal input	L
9	STEREO	I	STEREO indicator signal input	L
10	RDS RECEIVE	I	Signal showing RDS station or not input	L
11	DIRECT	O	DIRECT ON/OFF (Receiver only) *1	H
12	LW be or not	I	L: LW not being H: LW being (Tuner only) *1	—
13	LOUDNESS	O	LOUDNESS ON/OFF (Receiver only) *1	H
14	K10	I	KEYSCAN input 0	H
15	K11	I	KEYSCAN input 1	H
16	K12	I	KEYSCAN input 2	H
17	K13	I	KEYSCAN input 3	H
18	K14	I	KEYSCAN input 4	H
19	RECEIVER/ TUNER	I	Change-over of RECEIVER/ TUNER (L: Tuner H: Receiver)	—
20	K15	I	KEYSCAN input 5 (Receiver only) *1	H
21	K16	I	KEYSCAN input 6 (Receiver only) *1	H
22	REMOCON be or not	I	Change-over of destination (Receiver only) *1	H
23	NC		Not used	H
24	FUNCTION ST	O	Change-over of FUNCTION IC (TC9164N) Strove (Receiver only) *1	⊓
25	MUTE	O	TUNER, MUTE control output	H
26	VOL UP	O	VOLUME UP output	H
27	VOL DOWN	O	VOLUME DOWN output	H
28	Rotary input	O	Rotary encoder input A (Tuner only) *1	H
29	Rotary input	O	Rotary encoder input B (Tuner only) *1	H
30	$\overline{\text{RST}}$	I	Reset input	⊔
31	EX' TAL		Connecting 7.7 MHz oscillation crystal between pins	—
32	X' TAL			—
33	Vss		GND standard electric potential	—
34	NC		Not used	—
35	FL AC	O	FL AC ON/OFF	L
36	POWER	O	POWER ON/OFF	H
37	Seg 17	O	Segment indication output	H
38	Seg 18	O		
39	Seg 20	O		
40	Seg 19	O		
41	Seg 1	O		
42	Seg 2	O		
43	Seg 10	O		
44	Seg 11	O		
45	Seg 3	O		
46	Seg 12	O		
47	K00/S9	O	Segment indication output / KEYSCAN output	H

6. FL INFORMATION

●AAV1195(V801)

PIN LOCATION

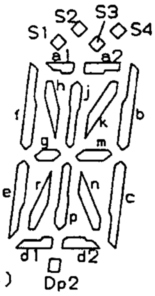

PATTERN AREA
①
㊹

PIN CONNECTION

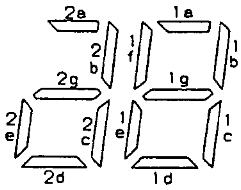
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
CONNECTION	F1	F1	NP	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	P24	P23	P22	P21	P20	P19

PIN NO.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
CONNECTION	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F2	F2

NOTE
1) F1,F2 --- Filament
2) NP ------- No pin
3) NC ------- No connection
4) DL ------- Datum Line
5) 1G~10G --- Grid

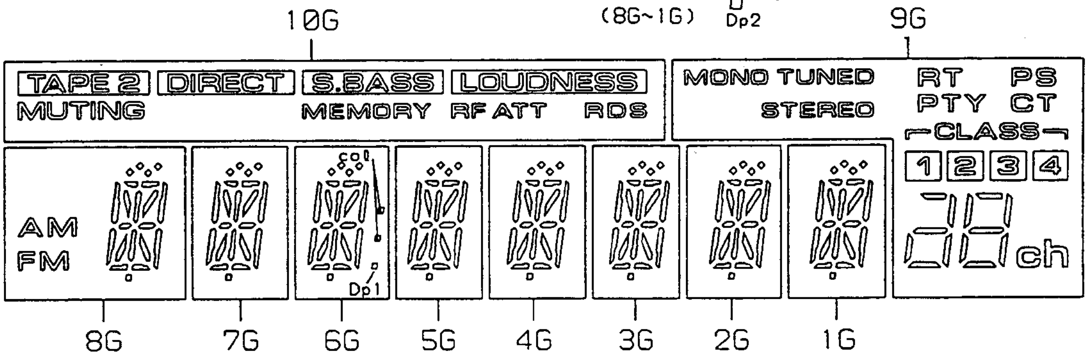

S1
S2
S3
S4
a1
a2
h
j
f
b
k
g
m
e
r
n
c
p
d1
d2
Dp2

(8G~1G)


2a
1a
2
b
1
f
1
b
2g
1g
2
e
2
c
1
e
1
c
2d
1d

(9G)

GRID ASSIGNMENT


10G
9G
TAPE 2
DIRECT
S.BASS
LOUDNESS
MUTING
MEMORY
RF ATT
RDS
MONO
TUNED
STEREO
RT
PS
PTY
CT
CLASS
1
2
3
4
AM
FM
coℓ
Dp1
ch
8G
7G
6G
5G
4G
3G
2G
1G

ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	TUNED	S1	S1	S1	S1	S1	S1	S1	S1
P2	-	STEREO	S2	S2	S2	S2	S2	S2	S2	S2
P3	-	2	S4	S4	S4	S4	S4	S4	S4	S4
P4	-	3	S3	S3	S3	S3	S3	S3	S3	S3
P5	MEMORY	MONO	a1	a1	a1	a1	a1	a1	a1	a1
P6	RF ATT	4	a2	a2	a2	a2	a2	a2	a2	a2
P7	-	⌐CLASS¬	h	h	h	h	h	h	h	h
P8	-	1	j	j	j	j	j	j	j	j
P9	TAPE 2	2b	b	b	b	b	b	b	b	b
P10	-	RT	k	k	k	k	k	k	k	k
P11	MUTING	1a	g	g	g	g	g	g	g	g
P12	LOUDNESS	1b	f	f	f	f	f	f	f	f
P13	-	2c	m	m	m	m	m	m	m	m
P14	-	CT	c	c	c	c	c	c	c	c
P15	-	PTY	p	p	p	p	p	p	p	p
P16	-	PS	r	r	r	r	r	r	r	r
P17	-	1g	n	n	n	n	n	n	n	n
P18	S.BASS	1e	d1	d1	d1	d1	d1	d1	d1	d1
P19	DIRECT	1c	e	e	e	e	e	e	e	e
P20	RDS	1d	d2	d2	d2	d2	d2	d2	d2	d2
P21	-	1f	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2
P22	-	ch	AM	-	coℓ	-	-	-	-	-
P23	-	2a, 2d, 2g	FM	-	Dp1	-	-	-	-	-
P24	-	2e	-	-	-	-	-	-	-	-

No.	NAME	I/O	FUNCTION	ACT
48	K01/S8	O	Segment indication output / KEYSCAN output	H
49	K02/S13	O		
50	K03/S4	O		
51	K04/S15	O		
52	Seg 16	O	Segment indication output	H
53	Seg 14	O		
54	Seg 6	O		
55	Seg 7	O		
56	Seg 5	O		
57	Seg 21	O		
58	Seg 22	O		
59	Seg 23	O		
60	Seg 24	O	Segment indication output (Receiver only) *1	H
61	R: G 1 T: G 10	O	Grid FL indication output	H
62	R: G 2 T: G 9	O		
63	R: G 3 T: G 8	O		
64	R: G 4 T: G 7	O		
65	R: G 5 T: G 6	O		
66	R: G 6 T: G 1	O		
67	R: G 7 T: G 2	O		
68	R: G 8 T: G 3	O		
69	R: G 9 T: G 4	O		
70	R: G 10 T: G 5	O		
71	–VFDP		Electric potential for FL display (–30 V)	—
72	VDD		+5 V Power source input	—
73	NC		+5 V Power source input	—
74	TEST	I	TEST MODE judgement input	H
75	PLL_DT	O	PLL communication data output (LM7001) and change-over function (TC9164N)	—
76	PLL_CK	O	PLL communication clock output (LM7001) and change-over function (TC9164N)	—
77	PLL_CE	O	PLL communication chip enable output (LM7001)	H
78	RDS_CK	I	Each bit from LC7073 synchronizing clock input	—
79	AC	I	WAKE • UP AC pulse input	—
80	RDS_OUT	I	Judging RDS signals ouput or not	L

*1 : Functions will be changed according to setting (L or H) of Pin 19.

8. FOR SX−403RDS/HEWZXK, SX−303RDS/HBXK, HEWZXK, SX−203RDS/HBXK AND HEWZXK TYPES

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

CONTRAST OF MISCELLANEOUS PARTS FOR SX−403RDS

SX−403RDS/HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		HEXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1819	AWK1820	
	AF assy	AWZ5488	AWZ5491	
	TRANS assy	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	CCDSL820J50	*
	Serial sheet	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	
	Operating instructions (German)	....	ARC1480	

* *: Refer to page 4.*

CONTRAST OF MISCELLANEOUS PARTS FOR SX−303RDS

SX−303RDS/HBXK, HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		HEXK Type	HBXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1817	AWK1841	AWK1818	
	AF assy	AWZ5484	AWZ5623	AWZ5487	
	TRANS assy	AWZ5480	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	....	CCDSL820J50	*
⚠	AC power cord	ADG1135	ADG1143	ADG1135	
	Serial sheet	....	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	....	
	Operating instructions (English)	....	ARB1480	....	
	Operating instructions (German)	....	....	ARC1480	

* *: Refer to page 4.*

AF ASSY (For SX−303RDS)

AWZ5623, AWZ5487 and AWZ5484 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5484	AWZ5623	AWZ5487	
⚠	RY751	ASR1044	ASR1027	ASR1044	
⚠	L751	....	....	ATF−151	
	L981−L984	....	....	ATH−133	
	C201, C202	....	....	CKPUYB181K50	
	C203−C210, C213−C224	....	....	CKPUYB391K50	
	C211, C212	....	....	CKPUYB821K50	
	C527, C528	....	....	CKPUYB331K50	
	C555, C556	....	....	CKDYB103K500	
	C981, C982	....	....	CKDYB471K50	
	C983, C984, C987, C988	....	....	CFTXA473J50	
	C985, C986	....	....	CKDYF103Z50	
	C991−C994	....	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

AF ASSY (For SX−203RDS)

AWZ5622, AWZ5482 and AWZ5476 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5476	AWZ5622	AWZ5482	
⚠	L751	....	....	ATF−151	
	L981−L984	....	....	ATH−133	
	C201, C202	....	....	CKPUYB181K50	
	C203−C210, C213−C224	....	....	CKPUYB391K50	
	C211, C212	....	....	CKPUYB821K50	
	C527, C528	....	....	CKPUYB331K50	
	C555, C556	....	....	CKDYB103K500	
	C981, C982	....	....	CKDYB471K50	
	C983, C984, C987, C988	....	....	CFTXA473J50	
	C985, C986	....	....	CKDYF103Z50	
	C991−C994	....	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

CONTRAST OF MISCELLANEOUS PARTS FOR SX−203RDS

SX−203RDS/HBXK, HEWZXK and HEXK have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		HEXK Type	HBXK Type	HEWZXK Type	
NSP	AF COMPLEX assy	AWK1815	AWK1840	AWK1816	
	AF assy	AWZ5476	AWZ5622	AWZ5482	
	TRANS assy	AWZ5480	AWZ5480	AWZ5490	
	SP SW assy	AWZ5478	AWZ5478	AWZ5483	
	FM/AM TUNER MODULE	AXQ3227	AXQ3227	AXQ3228	
	Ceramic capacitor (C2)	....	....	CCDSL820J50	*
⚠	AC power cord	ADG1135	ADG1143	ADG1135	
	Serial sheet	....	....	AAX1523	
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	....	....	
	Operating instructions (English)	....	ARB1480	....	
	Operating instructions (German)	....	....	ARC1480	

** : Refer to page 4.*

AF ASSY (For SX−403RDS)

AWZ5491 and AWZ5488 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5488	AWZ5491	
⚠	L751	....	ATF−151	
	L981−L984	....	ATH−133	
	C201, C202	....	CKPUYB181K50	
	C203−C210, C213−C224	....	CKPUYB391K50	
	C211, C212	....	CKPUYB821K50	
	C527, C528	....	CKPUYB331K50	
	C555, C556	....	CKDYB103K500	
	C981, C982	....	CKDYB471K50	
	C983, C984, C987, C988	....	CFTXA473J50	
	C985, C986	....	CKDYF103Z50	
	C991−C994	....	CCDSL560J50	
	R211, R212	RD1/8PM331J	RD1/8PM102J	
⚠	R563, R564	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	....	RD1/4PMF100J	

TRANS ASSY

AWZ5490 and AWZ5480 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5480	AWZ5490	
	C101	CQMXA103J100	CQMXA473J100	

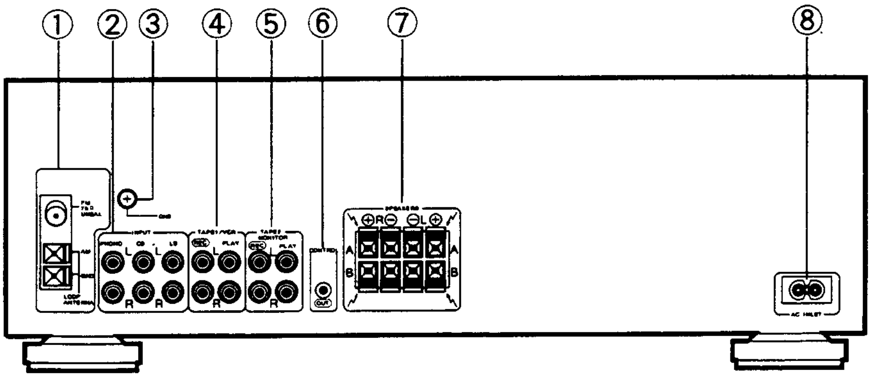
SP SW ASSY

AWZ5483 and AWZ5478 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5478	AWZ5483	
	C571, C572	....	CKDYB222K50	
	C573, C574	....	CCDSL101J50	

9. PANEL FACILITIES

9.1 REAR PANEL FACILITIES



- The illustration shows SX-403RDS.

① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② INPUT jacks

PHONO ················ Connect to the output cables from a turntable.
CD ············ Connect to the output jacks of a compact disc player.
LD ························· Connect to the output jacks of a LD player.

③ GND terminal

Connect to the ground lead of a turntable.
Use a screwdriver to connect with the ground terminal.

④ TAPE 1/VCR jacks

Connect these jacks to the cassette deck or video cassette recorder.

⑤ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

⑥ CONTROL OUT jacks (SX-403RDS and SX-303RDS)

Connect this jack to other Pioneer components bearing the SR mark when using the remote control of this unit to control the other components.

① To the CONTROL IN jack of other component.
② Receiver
③ Pioneer component bearing the SR mark.
④ Remote control unit.

⑦ SPEAKERS terminals

A: Connect to a first set speakers.
B: Connect to a second set of speakers.

NOTE:
No sound will be heard through the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑧ AC INLET

Connect the power cord first to the unit, then plug it into the AC wall outlet.

FM/AM TUNER MODULE

AXQ3228 and AXQ3227 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AXQ3227	AXQ3228	
	Q6218	....	2SC2712	
	D6103	....	1SV228	
	F6205	....	ATF1152	
	L6105	....	ATC1015	
	L6205	....	LCTA680J3225	
	C6106	CCSQTH270J50	CCSQTH330J50	
	C6107	CCSQTH270J50	CCSQTH300J50	
	C6109	....	CCSQTH270J50	
	C6110	....	CCSQTH300J50	
	C6115	CKSQYB103K50	CKSQYB102K50	
	C6122	CCSQCH020C50	CCSQCH010C50	
	C6126	....	CKSQYB102K50	
	C6203	CCSQCH101J50	....	
	C6204	CKSQYB102K50	ACG1051	
	C6229	CCSCH821J50	CCSCH102J50	
	C6247	....	CKSQYB122K50	
	C6248	....	CEEA100M50	
	C6251, C6252	CKSQYB682K50	CKSQYB562K50	
	C6256	....	CKSQYF223Z50	
	C6267	....	CKSQYB473K50	
	C6272	....	CCSQSL330J50	
	R6114	....	RS1/10S473J	
	R6122	RS1/10S472J	RS1/10S332J	
	R6129, R6302	....	RS1/8S000J	
	R6131, R6308	RS1/10S000J	....	
	R6232	....	RS1/10S134J	
	R6233	....	RS1/10S513J	
	R6234	....	RS1/10S222J	
	R6235	....	RS1/10S132J	
	R6236	....	RS1/10S472J	
	R6237	RS1/8S182J	RS1/8S122J	
	R6238	RS1/10S182J	RS1/10S122J	
	R6239	RS1/8S332J	RS1/8S103J	
	R6240	RS1/10S332J	RS1/10S103J	
	R6251	RS1/10S620J	RS1/10S680J	
	R6290	RS1/8S000J	....	

⑩ TUNING buttons (–, +)

Use for tuning. Press the buttons to change the frequency display (3-speed Accel Tuning)
In the Manual Name input mode and PTY search mode, use to select characters and program types.

⑪ MEMORY button

When the unit is in the frequency display mode, pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.
NOTE:
The MEMORY button does not function during SLEEP timer operation.

⑫ VOLUME control

Use to adjust volume level.

⑬ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

⑭ SPEAKERS (■ OFF, ▬ ON) buttons

These are used to select the speaker through which you wish to listen.
A: When the speakers connected to A terminals are in use.
B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to OFF position when only the headphones are in use.

NOTE:
No sound will be heard through the speakers when both A and B buttons are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑮ DISPLAY MODE button

Use only during FM reception. Use this to switch between display modes. Each time you press it, the display changes as follows.

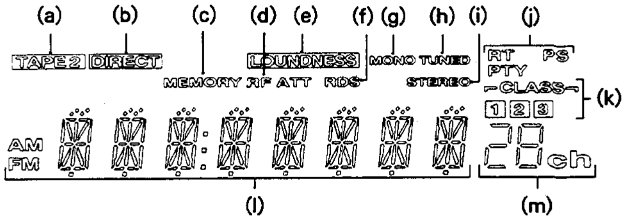
→ RT mode
Displays PS → RT → Returns to PS.
↓
PS mode
↓
PTY mode
↓
FREQ (Frequency) mode

- This button does not function when the SLEEP button of the remote control unit is ON.

⑯ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, PS modes:
Press the button, "INPUT" is displayed, and the mode switches to manual station name input.
When in the FM PTY mode:
Press the button, "SEARCH" is displayed, and the mode switches to program type search.

- This button does not function when the SLEEP button of the remote control unit is ON. This button does not function at the time of frequency mode.



⑰ OPERATION DISPLAY panel

(a) TAPE 2 monitor indicator
(b) DIRECT indicator (SX-403RDS)
(c) MEMORY indicator
(d) RF ATT indicator
(e) LOUDNESS indicator
(f) RDS indicator
(g) MONO indicator
(h) TUNED indicator
(i) STEREO indicator
(j) RT, PS, PTY indicator
(k) CLASS indicator
(l) Frequency, function, character display
(m) Channel display

⑱ CLASS button

Use to switch between preset memory classes 1 to 3. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 30 stations to be memorized.

⑲ Remote sensor

⑳ STATION CALL buttons

These buttons are used to preset and recall desired broadcasting stations and direct access tuning.

㉑ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat (normal) posion. When tuned to the right, low-frequency tones are emphasized.
NOTE:
This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

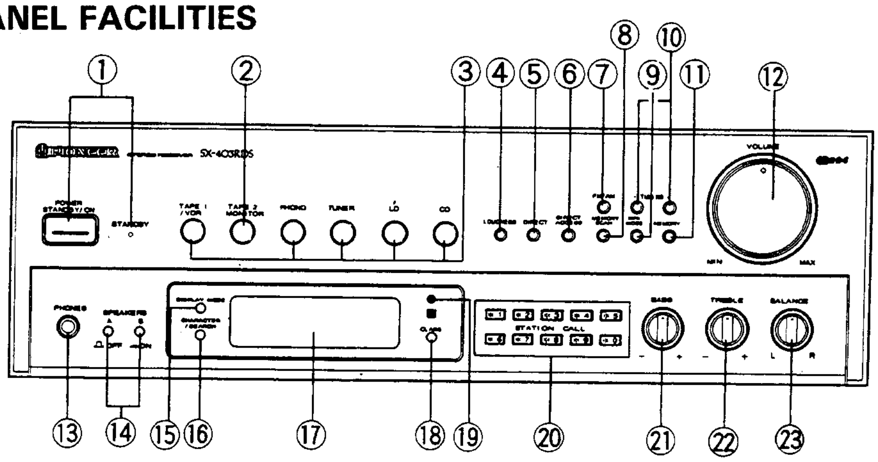
㉒ TREBLE tone control

Use to adjust high-frequency tone. The center position is the flat (normal) position. When tuned to the right, high-frequency tones are emphasized.
NOTE:
This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

㉓ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the rights side is louder, turn toward the L position and if the left side is louder, turn toward the R position.
NOTE:
This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

9.2 FRONT PANEL FACILITIES



- The illustration shows SX-403RDS.

① POWER (STANDBY/ON) switch/STANDBY indicator (SX-403RDS, SX-303RDS)

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain opetation readiness.

- The accessory remote control unit can also be used to operate STANDBY/ON.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for approx. 5 seconds.

① POWER switch/indicator (SX-203RDS)

When this switch is pressed, the indicator showing power is being supplied lights up.
Press the switch again to turn power OFF.
[Timer ON/OFF possible]
When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.
NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for approx 5 seconds.

② TAPE 2 MONITOR button

Press when listening to tape playback with the cassette deck 2.

③ Function buttons

Use to select playback source.

[TAPE 1/VCR] – Press when listening to tape playback with the cassette deck 1 or video cassette recorder.
[PHONO] – Press when listening to record playback on a turntable.
[TUNER] – Press when listening to AM or FM broadcasts with a tuner.
[LD] – Press when listening to laser disc with a laser disc player.
[CD] – Press when listening to compact disc playback with a CD player.

④ LOUDNESS button

Use when listening at low volume levels.

ON: Boosts low and high frequencies to produce a fuller sense of sound, particularly at low volume levels.
OFF: Normal position.

NOTE:
This button does not operate when the DIRECT button is in the ON position (SX-403RDS).

⑤ DIRECT button (SX-403RDS)

Use this button when you do not wish to pass the output from input terminal through the various frequency adjusting circuits (TREBLE, BASS and LOUDNESS). When this button is on, the BALANCE control does not operate.

⑤ RF ATT button (SX-303RDS/SX-203RDS)

Set this button to ON when receiving strong FM signals (near-by stations) to reduce sound distortion.
Normally, this button should be set to OFF.
This button has no effect on reception of AM broadcasts.

NOTE:
This button's status is preset for each station in station memory.

⑥ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

⑦ FM/AM selector button

This button is used to select either AM or FM reception.

⑧ MEMORY SCAN button

This button is used for station memory scan.
MEMORY SCAN is not executed at the time of SLEEP timer operation.

⑨ MPX MODE selector button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.

Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.
Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This button has no effect on reception of AM broadcasts.